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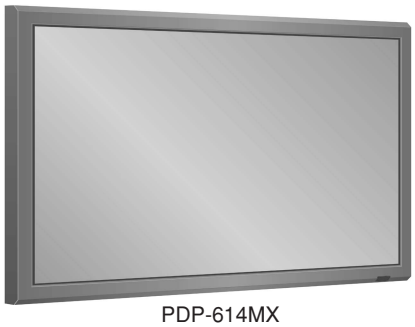
Service Manual



PDP-614MX

ORDER NO.
ARP3232

PLASMA DISPLAY

PDP-614MX LUC
PRO-1410HD LUC

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-614MX	LUC	AC100-120V	
PRO-1410HD	LUC	AC120V	

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SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis.

The following precautions should be observed :

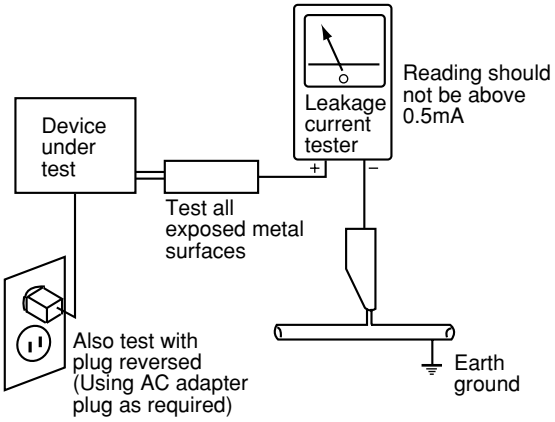
1. When service is required, even though the PDP UNIT an isolation transformer should be inserted between the power line and the set in safety before any service is performed.
2. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
3. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
4. Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
5. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing. Therefore, the following checks should be performed for the continued protection of the customer and servicetechnician.
6. Perform the following precautions against unwanted radiation and rise in internal temperature.
   - Always return the internal wiring to the original styling.
   - Attach parts (Gascket, Ferrite Core, Ground, Rear Cover, Shield Case etc.) surely after disassembly.
7. Perform the following precautions for the PDP panel.
   - When the front case is removed, make sure nothing hits the panel face, panel corner, and panel edge (so that the glass does not break).
   - Make sure that the panel vent does not break. (Check that the cover is attached.)
   - Handle the FPC connected to the panel carefully. Twisting or pulling the FPC when connecting it to the connector will cause it to peel off from the panel.
8. Pay attention to the following.
   - When the front case is removed, infrared ray is radiated and may disturb reception of the remote control unit.
   - Pay extreme caution when the front case and rear panel are removed because this may cause a high risk of disturbance to TVs and radios in the surrounding.

Leakage Current Cold Check

With the AC plug removed from an AC power source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of 0.3MΩ and a maximum resistor reading of 5MΩ. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into an AC power source (do not use an isolation transformer for this check).
Turn the AC power switch on.
Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.
Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire or other hazards.
Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

CAUTION

• Observe the caution matter, without fail

• The caution matters of CAUTION given in the instruction manuals, etc., must be observed, without fail.

• Do not give shocks and vibration.

• The panel surface (display plane) of the filter and the PDP module is made of glass. If any shocks or vibration is applied, it may be broken and the scattered glass chips will be a cause of injury.

• Do not put anything.

• Do not put anything on the product. Otherwise, this can be a cause of injury as a result of falling down or dropping caused by imbalance.

• Transportation must be done by enough personnel.

• The product is heavy. In the case of transportation, unpacking, or packing, more than two persons should do it (four persons for a product of 50-inch or larger) by supporting the top and the bottom of the product.

■Miscellaneous caution matters

(1) This product uses highly integrated semiconductor parts. Since these parts are fragile to electrostatic charges, earth bands should be used for handling. The product should be handled where measures have been taken against electrostatic charges.

(2) For this product, the PDP modules and the PWBs are repaired by replacement in a unit. Therefore, the units of the PDP modules and the PWBs must not be repaired or disassembled. Otherwise, the validity of warranty will be lost.

(3) If this product is used for the fixed character display or the like as in the case of a character display board, a phenomenon of burning (not warranted) will occur. Burning is a phenomenon that the unevenness in the brightness is caused in the display. In such a case, the brightness in the section where the integrated display time is longer becomes lower than the brightness in another section where the integrated display time is shorter. This phenomenon is in proportion to the integrated display time and the brightness. For this reason, to relieve this difficulty during servicing, do not use any still picture, but use a display by motion pictures of a video or the like. In addition, use “FULL” for the screen mode and avoid using any display by “NORMAL”, “TRUE”, or MULTI SCREEN like side by side etc. If it is necessary to use only a still picture for unavoidable reasons, use a burning relief function such as “PLE LOCK”, “ORBITER”, “SCREEN WIPER”, etc.

(4) When a PDP module is operated after a long time of storage, it may encounter a difficulty like a failure in displaying a screen or unstability according to the condition of storage. In such a case, the PDP module should be incorporated in the product and aging treatment should be carried out for about two hours (all screen display).

(5) Sulfides will deteriorate the PDP module and this is a cause of malfunction. Therefore, it is absolutely prohibited to put any vulcanized rubber or a material containing sulfur in the vicinity of the PDP module.

(6) When taking out a PDP module from the maintenance package box, do it slowly so that the

panel surface does not get any shock or stress.

(7) If one touches the connector of the flexible cable exposed to the rear side of the PDP module, there is danger of causing a poor contact. As such, it must be handled with utmost care. In addition, the flexible cable is very weak in mechanical strength. Therefore, this cable must not be touched during handling.

(8) The panel surface of the filter and the PDP module is easy to be hurt. These components should be handled very carefully not to press or rub them with a hard thing. Never put them on a hard thing with the panel surface faced downwards.

(9) When the panel surface of the PDP module is contaminated, gently wipe off the contaminant with a piece of soft dry cloth. Liquid-state contamination can be removed by lightly pressing it, without rubbing it. If it is difficult to remove the contamination, use a piece of cloth soaked with a neutral detergent. The cloth for wiping off should be clean. Never use the same cloth repeatedly. If a cleansing detergent or water drops should enter the module interior or be attached to the module surface other than the display plane at the time of cleaning, this will give rise to the destruction of the product when the product is energized.

(10) Refer to the “Instruction Manual” in regard to contamination in the filter and the cabinet.

(11) When transporting this product, use the packing materials specified in the list of parts. Once used, such packing materials should not be used again.

(12) This product is composed of a variety of parts, such as those made of materials like glass, metal, plastics, etc., and those like a lithium battery (circuit symbol of the MAIN PWB: BA9501), etc. Therefore, when abandoning this product, this should be done in accordance with the relevant law of the nation or an autonomous body.

CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to above the Instructions.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety

Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments

To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts

Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning

For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

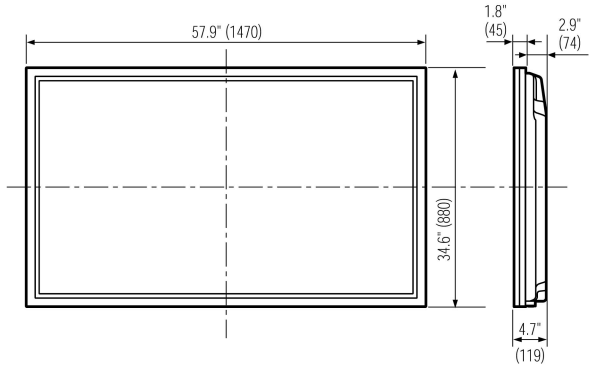
5. Shipping mode and Shipping screws

To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

SPECIFICATIONS

■ PDP-614MX

Screen Size	53.2"(H)×29.9"(V) inches 1351(H)×760(V) mm diagonal 61"
Aspect Ratio	16 : 9
Resolution	1365(H)×768(V) pixels
Signals	
Synchronization Range	Horizontal : 15.5 to 110 kHz (automatic : step scan) Vertical : 50.0 to 120 Hz (automatic : step scan)
Input Signals	RGB, NTSC (3.58/4.43), PAL (B,G,M,N), PAL60, SECAM, HD*1 , DVD*1 , DTV*1
Input Terminals (VIDEO1 and PC1 can also be used as OUTPUT terminals)	
PC	
Visual 1 (Analog)	mini D-sub 15-pin×1
Visual 2 (Analog)	BNC (R, G, B, H/CS, V)×1*2
Visual 3 (Digital)	DVI-D 24-pin×1*3
Video	
Visual 1	BNC×1
Visual 2	RCA-pin×1
Visual 3	S-Video: DIN 4-pin×1
COMPONENT	
Visual 1	RCA-pin (Y, PB[CB], PR[CR])×1*1
Visual 2	BNC (Y, PB[CB], PR[CR])×1*1, *2
Audio	Stereo RCA×3 (Selectable)
RS-232C	D-sub 9-pin×1
Sound output	9W+9W at 6 ohm
Power Supply	AC100-120V 50/60Hz
Current Rating	8.0A (maximum)
Power Consumption	540W (standby 0.9W)
Dimensions	57.9 (W)×34.7 (H)×4.7 (D) inches 1470 (W)×880 (H)×119(D) mm
Weight	134.5 lbs / 61.0 kg (without stand)
Environmental Considerations	
Operating Temperature	0°C to 40°C / 32°F to 104°F
Other Features	Motion compensated 3D Scan Converter (NTSC, PAL, 480I, 576I, 525I, 625I, 1035I, 1080I), 2-3 pull down Converter (NTSC, 480I, 525I, 1035I, 1080I (60Hz)), 2-2 pull down Converter (PAL, 576I, 625I, NTSC, 480I, 525I), Digital Zoom Function (100-900% Selectable), Video Wall 4-25 multi screen, Self Diagnosis, Image Burn reduction tools (ABL LOCK1~3, INVERSE, WHITE, ORBITER (Auto1,2/Manual), SCREEN WIPER), Color Temperature select (high/mid/mid low/low, user has 4 memories), Key lock (Except power SW), Auto Picture, Input Skip, Color Detail Adjustment, Low Tone (3 mode), Auto ID, Programmable Timer, Gamma Correction (4 mode), Loop through interface, Plug and play (DDC1, DDC2b, PC3: DDC2b only)



Units are in inch
(mm)

The features and specifications may be subject to change without notice.

***1 COMPONENT input signals supported on this system**

480P (60 Hz)	480I (60 Hz)	525P (60 Hz)
525I (60 Hz)	576P (50 Hz)	576I (50 Hz)
625P (50 Hz)	625I (50 Hz)	720P (60 Hz)
1035I (60 Hz)	1080I (50 Hz)	1080I (60 Hz)

***2 The 5-BNC connectors are used as PC2 and COMPONENT2 input. Select one of them under "BNC INPUT".**

***3 Compatible with HDCP.**

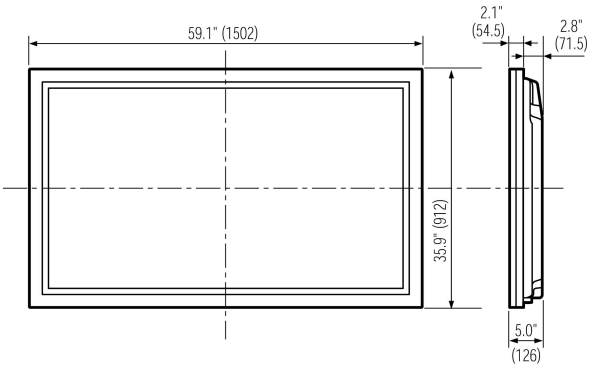
Supported Signals

- 640×480P @ 59.94/60Hz
- 1280×720P @ 59.94/60Hz
- 1920×1080I @ 59.94/60Hz
- 720×480P @ 59.94/60Hz
- 1440 (720)×480I @ 59.94/60Hz
- 1920×1080I @ 50Hz
- 720×576P @ 50Hz
- 1440 (720)×576P @ 50Hz

Note: In some cases a signal on the plasma monitor may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc...). If you do experience such a problem please contact your dealer and also the manufacturer of the source equipment.

■ PRO-1410HD

Screen Size	53.2"(H)×29.9"(V) inches 1351(H)×760(V) mm diagonal 61"
Aspect Ratio	16 : 9
Resolution	1365(H)×768(V) pixels
Signals	
Synchronization Range	Horizontal : 15.8 to 110 kHz (automatic : step scan) Vertical : 59.8 to 120 Hz (automatic : step scan)
Input Signals	RGB, NTSC (3.58/4.43), PAL (B,G,M,N), PAL60, SECAM, HD*1 , DVD*1 , DTV*1
Input Terminals	
PC	
Visual 1 (Analog)	mini D-sub 15-pin×1
Visual 2 (Analog)	BNC (R, G, B, H/CS, V)×1*2
Video	
Visual 1	BNC×1
Visual 2	RCA-pin×1
Visual 3	S-Video:DIN 4-pin×1
COMPONENT	
Visual 1	RCA-pin (Y, PB[CB], PR[CR])×1*1
Visual 2	BNC (Y, PB[CB], PR[CR])×1*1, *2
HDMI	HDMI connector*3
Audio	Stereo RCA×3 (Selectable)
RS-232C	D-sub 9-pin×1
Sound output	9W+9W at 6 ohm
Power Supply	AC120V 60Hz
Current Rating	6.7A (maximum)
Power Consumption	540W (typical) (standby 0.9W)
Dimensions	59.1 (W)×35.9 (H)×5.0 (D) inches 1502 (W)×912 (H)×126(D) mm
Weight	149.9 lbs / 68.0 kg (without stand)
Environmental Considerations	
Operating Temperature	0°C to 40°C / 32°F to 104°F
Other Features	Motion compensated 3D Scan Converter (NTSC, PAL, 480I, 525I, 1035I, 1080I), 2-3 pull down Converter (NTSC, 480I, 525I, 1035I, 1080I (60Hz)), 2-2 pull down Converter (PAL, NTSC, 480I, 525I), Digital Zoom Function (100-900% Selectable), Self Diagnosis, Image Burn reduction tools (ABL, INVERSE, WHITE, ORBITER, SCREEN WIPER), Color Temperature select (high/middle/middle low/low, user has 4 memories), Auto Picture, Input Skip, Color MGT, Low Tone (3 mode), Gamma Correction (4 mode), Plug and play (DDC1, DDC2b, HDMI:E-DDC), Split screen operations



Units are in inch
(mm)

The features and specifications may be subject to change without notice.

***1 COMPONENT input signals supported on this system**

480P (60 Hz)	480I (60 Hz)	525P (60 Hz)
525I (60 Hz)	720P (60 Hz)	1035I (60 Hz)
1080I (60 Hz)		

***2 The 5-BNC connectors are used as PC2 and COMPONENT2 input. Select one of them under "BNC INPUT".**

***3 HDMI input signals supported on this system.**

Supported Signals

- 640×480P @ 59.94/60Hz
- 1280×720P @ 59.94/60Hz
- 1920×1080I @ 59.94/60Hz
- 720×480P @ 59.94/60Hz
- 1440 (720)×480I @ 59.94/60Hz

Note: In some cases a signal on the plasma monitor may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc...). If you do experience such a problem please contact your dealer and also the manufacturer of the source equipment.

TABLE OF SIGNAL SUPPORTED

■ PDP-614MX

Supported resolution

- When the screen size is 4:3, each signal is converted to a 1024 dots × 768 lines signal. (Except for *2, 3, 4)
- When the screen size is Dot by Dot, the picture is displayed in the original resolution.
- When the screen size is FULL, each signal is converted to a 1365 dots × 768 lines signal. (Except for *3)

Computer input signals supported by this system

Model / Signal Type	Dots × lines	Vertical frequency (Hz)	Horizontal frequency (kHz)	Sync Polarity		Presence		Screen size			RGB select*5	DVI	Memory
				Horizontal	Vertical	Horizontal	Vertical	4:3	D BY D	FULL (16:9)			
	640×400	70.1	31.5	NEG	NEG	YES	YES	YES*2	YES	YES	– –	NO	4
IBM PC/AT*8 compatible computers	640×480	59.9	31.5	NEG	NEG	YES	YES	YES	YES	YES	STILL	YES	5
		72.8	37.9	NEG	NEG	YES	YES	YES	YES	YES	– –	YES	7
		75.0	37.5	NEG	NEG	YES	YES	YES	YES	YES	STILL	YES	8
		85.0	43.3	NEG	NEG	YES	YES	YES	YES	YES	– –	YES	9
		100.4	51.1	NEG	NEG	YES	YES	YES	YES	YES	– –	YES	41
		120.4	61.3	NEG	NEG	YES	YES	YES	YES	YES	– –	YES	42
	848×480	60.0	31.0	POS	POS	YES	YES	– –	YES	YES	WIDE2	YES	19
	852×480*1	60.0	31.7	NEG	NEG	YES	YES	– –	YES	YES	WIDE1	YES	17
	800×600	56.3	35.2	POS	POS	YES	YES	YES	YES	YES	STILL	YES	11
		60.3	37.9	POS	POS	YES	YES	YES	YES	YES	STILL	YES	12
		72.2	48.1	POS	POS	YES	YES	YES	YES	YES	– –	YES	13
		75.0	46.9	POS	POS	YES	YES	YES	YES	YES	– –	YES	14
		85.1	53.7	POS	POS	YES	YES	YES	YES	YES	– –	YES	15
		99.8	63.0	POS	POS	YES	YES	YES	YES	YES	– –	YES	43
		120.0	75.7	POS	POS	YES	YES	YES	YES	YES	– –	YES	44
	1024×768	60.0	48.4	NEG	NEG	YES	YES	YES*3	– –	YES	STILL	YES	24
		70.1	56.5	NEG	NEG	YES	YES	YES*3	– –	YES	– –	YES	25
		75.0	60.0	POS	POS	YES	YES	YES*3	– –	YES	STILL	YES	26
		85.0	68.7	POS	POS	YES	YES	YES*3	– –	YES	– –	YES	27
		100.6	80.5	NEG	NEG	YES	YES	YES*3	– –	YES	– –	YES	45
	1152×864	75.0	67.5	POS	POS	YES	YES	YES	– –	YES	STILL	YES	51
	1280×768	56.2	45.1	NEG	NEG	YES	YES	– –	YES	YES	WIDE1	NO	52
		59.8	48.0	NEG	POS	YES	YES	– –	YES	YES	WIDE4	YES	23
		69.8*9	56.0*9	NEG	POS	YES	YES	– –	YES	YES	WIDE1	YES	66
	1280×800*9	60.0	49.7	NEG	NEG	YES	YES	– –	– –	YES	WIDE1	YES	21
	1280×854*9	60.0	53.1	NEG	NEG	YES	YES	– –	– –	YES	WIDE2	YES	37
	1360×765	60.0	47.7	POS	POS	YES	YES	– –	– –	YES*3	WIDE1	NO	22
	1360×768	60.0	47.7	POS	POS	YES	YES	– –	– –	YES*3	WIDE1	YES	22
	1376×768	59.9	48.3	NEG	POS	YES	YES	– –	– –	YES	WIDE2	YES	53
	1280×1024	60.0	64.0	POS	POS	YES	YES	YES*4	– –	YES	STILL	YES	29
		75.0	80.0	POS	POS	YES	YES	YES*4	– –	YES	– –	YES	30
		85.0	91.1	POS	POS	YES	YES	YES*4	– –	YES	– –	YES	40
		100.1	108.5	POS	POS	YES	YES	YES*4	– –	YES	– –	NO	47
	1680×1050*9	60.0	65.3	NEG	NEG	YES	YES	– –	– –	YES	WIDE4	YES	38
	1600×1200	60.0	75.0	POS	POS	YES	YES	YES	– –	YES	– –	YES	54
		65.0	81.3	POS	POS	YES	YES	YES	– –	YES	– –	NO	55
		70.0	87.5	POS	POS	YES	YES	YES	– –	YES	– –	NO	56
		75.0	93.8	POS	POS	YES	YES	YES	– –	YES	– –	NO	57
		85.0	106.3	POS	POS	YES	YES	YES	– –	YES	– –	NO	58
	1920×1200*9	60.0	74.6	NEG	NEG	YES	YES	– –	– –	YES	WIDE2	NO	81
	1920×1200RB*9	60.0	74.0	NEG	NEG	YES	YES	– –	– –	YES	WIDE3	YES	88
Apple Macintosh*6 *8	640×480	66.7	35.0	Sync on G	Sync on G	– –	– –	YES	YES	YES	– –	NO	6
	832×624	74.6	49.7	Sync on G	Sync on G	– –	– –	YES	YES	YES	– –	NO	16
	1024×768	74.9	60.2	Sync on G	Sync on G	– –	– –	YES*3	– –	YES	WIDE1	NO	28
	1152×870	75.1	68.7	Sync on G	Sync on G	– –	– –	YES	– –	YES	WIDE1	NO	39
	1440×900*9	60.0	56.0	NEG	NEG	YES	YES	– –	– –	YES	– –	YES	89
Work Station (EWS4800)*8	1280×1024	60.0	64.6	NEG	NEG	YES	YES	YES*4	– –	YES	– –	YES	29
		71.2	75.1	NEG	NEG	YES	YES	YES*4	– –	YES	– –	YES	48
Work Station(HP)*8	1280×1024	72.0	78.1	– –	– –	– –	– –	YES*4	– –	YES	– –	YES	59
Work Station (SUN)*8	1152×900	66.0	61.8	C Sync	C Sync	– –	– –	YES	– –	YES	– –	YES	60
		76.0	71.7	C Sync	C Sync	– –	– –	YES	– –	YES	– –	YES	61
	1280×1024	76.1	81.1	C Sync	C Sync	– –	– –	YES*4	– –	YES	– –	YES	30
Work Station (SGI)	1024×768	60.0	49.7	– –	– –	– –	– –	YES*3	– –	YES	– –	YES	62
	1280×1024	60.0	63.9	– –	– –	– –	– –	YES*4	– –	YES	– –	YES	29
IDC-3000G													
PAL625P	768×576	50.0	31.4	NEG	NEG	YES	YES	YES*7	– –	YES*7	– –	NO	31
NTSC525P	640×480	59.9	31.5	NEG	NEG	YES	YES	YES*7	– –	YES*7	MOTION	NO	32

*1 Only when using a graphic accelerator board that is capable of displaying 852×480.
*2 This signal is converted to a 1024 dots × 640 lines signal.
*3 The picture is displayed in the original resolution.
*4 The aspect ratio is 5:4. This signal is converted to a 960 dots×768 lines signal.
*5 Normally the RGB select mode suite for the input signals is set automatically. If the picture is not displayed properly, set the RGB mode prepared for the input signals listed in the table above.
*6 To connect the monitor to Macintosh computer, use the monitor adapter (D-Sub 15-pin) to your computer's video port.
*7 Other screen sizes (ZOOM and WIDE) are available as well.
*8 When viewing a moving picture at a vertical frequency greater than 65Hz, the picture may sometimes be unstable (jumpy). If this occurs, please set the refresh rate of the external equipment to 60Hz.
To view 480I@60Hz (480 interlaced lines, 60Hz refresh rate) or 576I@50Hz (567 interlaced lines, 50Hz refresh rate) when sync polarity is "Sync on Green", set "RGB SELECT" to "MOTION".
*9 CVT standard compliant.

NOTE:

- *While the input signals comply with the resolution listed in the table above, you may have to adjust the position and size of the picture or the fine picture because of errors in synchronization of your computer.*
- *When a 1280 dots × 1024 lines signal or 1600 dots × 1200 lines signal is input to the monitor, the picture will be compressed.*
- *This monitor has a resolution of 1365 dots × 768 lines. It is recommended that the input signal should be XGA, wide XGA, or equivalent.*
- *With digital input some signals are not accepted.*
- *The sync may be disturbed when a nonstandard signal other than the aforementioned is input.*
- *If you are connecting a composite sync signal, use the HD terminal.*

What is HDCP/HDCP technology?
HDCP is an acronym for High-bandwidth Digital Content Protection. High bandwidth Digital Content Protection (HDCP) is a system for preventing illegal copying of video data sent over a Digital Visual Interface (DVI).
If you are unable to view material via the DVI input, this does not necessarily mean the PDP is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community (Digital Content Protection, LLC).

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- "Apple Macintosh" is a registered trademark of Apple Computer, Inc. of the United States.

■ PRO-1410HD

Supported resolution

- When the screen size is 4:3, each signal is converted to a 1024 dots × 768 lines signal. (Except for *2, 3, 4)
- When the screen size is D BY D, the picture is displayed in the original resolution.
- When the screen size is FULL, each signal is converted to a 1365 dots × 768 lines signal. (Except for *3)

Computer input signals supported by this system

Model / Signal Type	Dots × lines	Vertical frequency (Hz)	Horizontal frequency (kHz)	Sync Polarity		Presence		Screen Size			RGB select*5	Memory
				Horizontal	Vertical	Horizontal	Vertical	4:3	D BY D	FULL (16:9)		
	640×400	70.1	31.5	NEG	NEG	YES	YES	YES*2	– –	YES	– –	4
IBM PC/AT*8 compatible computers	640×480	59.9	31.5	NEG	NEG	YES	YES	YES	– –	YES	STILL	5
		72.8	37.9	NEG	NEG	YES	YES	YES	– –	YES	– –	7
		75.0	37.5	NEG	NEG	YES	YES	YES	– –	YES	STILL	8
		85.0	43.3	NEG	NEG	YES	YES	YES	– –	YES	– –	9
		100.4	51.1	NEG	NEG	YES	YES	YES	– –	YES	– –	41
		120.4	61.3	NEG	NEG	YES	YES	YES	– –	YES	– –	42
	848×480	60.0	31.0	POS	POS	YES	YES	– –	– –	YES	WIDE2	19
	852×480*1	60.0	31.7	NEG	NEG	YES	YES	– –	– –	YES	WIDE1	17
	800×600	56.3	35.2	POS	POS	YES	YES	YES	– –	YES	STILL	11
		60.3	37.9	POS	POS	YES	YES	YES	– –	YES	STILL	12
		72.2	48.1	POS	POS	YES	YES	YES	– –	YES	– –	13
		75.0	46.9	POS	POS	YES	YES	YES	– –	YES	– –	14
		85.1	53.7	POS	POS	YES	YES	YES	– –	YES	– –	15
		99.8	63.0	POS	POS	YES	YES	YES	– –	YES	– –	43
		120.0	75.7	POS	POS	YES	YES	YES	– –	YES	– –	44
	1024×768	60.0	48.4	NEG	NEG	YES	YES	YES*3	– –	YES	STILL	24
		70.1	56.5	NEG	NEG	YES	YES	YES*3	– –	YES	– –	25
		75.0	60.0	POS	POS	YES	YES	YES*3	– –	YES	STILL	26
		85.0	68.7	POS	POS	YES	YES	YES*3	– –	YES	– –	27
		100.6	80.5	NEG	NEG	YES	YES	YES*3	– –	YES	– –	45
	1152×864	75.0	67.5	POS	POS	YES	YES	YES	– –	YES	STILL	51
	1280×768	56.2	45.1	NEG	NEG	YES	YES	– –	YES	YES	WIDE1	52
		59.8	48.0	NEG	POS	YES	YES	– –	YES	YES	WIDE4	23
		69.8*9	56.0*9	NEG	POS	YES	YES	– –	YES	YES	WIDE1	66
	1280×800*9	60.0	49.7	NEG	NEG	YES	YES	– –	– –	YES	WIDE1	21
	1280×854*9	60.0	53.1	NEG	NEG	YES	YES	– –	– –	YES	WIDE2	37
	1360×765	60.0	47.7	POS	POS	YES	YES	– –	– –	YES*3	WIDE1	22
	1360×768	60.0	47.7	POS	POS	YES	YES	– –	– –	YES*3	WIDE1	22
	1376×768	59.9	48.3	NEG	POS	YES	YES	– –	– –	YES	WIDE2	53
	1280×1024	60.0	64.0	POS	POS	YES	YES	YES*4	– –	YES	STILL	29
		75.0	80.0	POS	POS	YES	YES	YES*4	– –	YES	– –	30
		85.0	91.1	POS	POS	YES	YES	YES*4	– –	YES	– –	40
		100.1	108.5	POS	POS	YES	YES	YES*4	– –	YES	– –	47
	1680×1050*9	60.0	65.3	NEG	NEG	YES	YES	– –	– –	YES	WIDE4	38
	1600×1200	60.0	75.0	POS	POS	YES	YES	YES	– –	YES	– –	54
		65.0	81.3	POS	POS	YES	YES	YES	– –	YES	– –	55
		70.0	87.5	POS	POS	YES	YES	YES	– –	YES	– –	56
		75.0	93.8	POS	POS	YES	YES	YES	– –	YES	– –	57
		85.0	106.3	POS	POS	YES	YES	YES	– –	YES	– –	58
	1920×1200*9	60.0	74.6	NEG	NEG	YES	YES	– –	– –	YES	WIDE2	81
	1920×1200RB*9	60.0	74.0	NEG	NEG	YES	YES	– –	– –	YES	WIDE3	88
Apple Macintosh*6 *8	640×480	66.7	35.0	Sync on G	Sync on G	– –	– –	YES	– –	YES	– –	6
	832×624	74.6	49.7	Sync on G	Sync on G	– –	– –	YES	– –	YES	– –	16
	1024×768	74.9	60.2	Sync on G	Sync on G	– –	– –	YES*3	– –	YES	WIDE1	28
	1152×870	75.1	68.7	Sync on G	Sync on G	– –	– –	YES	– –	YES	WIDE1	39
	1440×900*9	60.0	56.0	NEG	NEG	YES	YES	– –	– –	YES	– –	89
Work Station (EWS4800)*8	1280×1024	60.0	64.6	NEG	NEG	YES	YES	YES*4	– –	YES	– –	29
		71.2	75.1	NEG	NEG	YES	YES	YES*4	– –	YES	– –	48
Work Station(HP)*8	1280×1024	72.0	78.1	– –	– –	– –	– –	YES*4	– –	YES	– –	59
Work Station (SUN)*8	1152×900	66.0	61.8	C Sync	C Sync	– –	– –	YES	– –	YES	– –	60
		76.0	71.7	C Sync	C Sync	– –	– –	YES	– –	YES	– –	61
	1280×1024	76.1	81.1	C Sync	C Sync	– –	– –	YES*4	– –	YES	– –	30
Work Station (SGI)	1024×768	60.0	49.7	– –	– –	– –	– –	YES*3	– –	YES	– –	62
	1280×1024	60.0	63.9	– –	– –	– –	– –	YES*4	– –	YES	– –	29
IDC-3000G												
NTSC525P	640×480	59.9	31.5	NEG	NEG	YES	YES	YES*7	– –	YES*7	MOTION	32

*1 Only when using a graphic accelerator board that is capable of displaying 852×480.
*2 This signal is converted to a 1024 dots × 640 lines signal.
*3 The picture is displayed in the original resolution.
*4 The aspect ratio is 5:4. This signal is converted to a 960 dots×768 lines signal.
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*7 Other screen modes (ZOOM and WIDE) are available as well.
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To view 480I@60Hz (480 interlaced lines, 60Hz refresh rate) when sync polarity is “Sync on Green”, set “RGB SELECT” to “MOTION”.
*9 CVT standard compliant.

NOTE:

- *While the input signals comply with the resolution listed in the table above, you may have to adjust the position and size of the picture or the fine picture because of errors in synchronization of your computer.*
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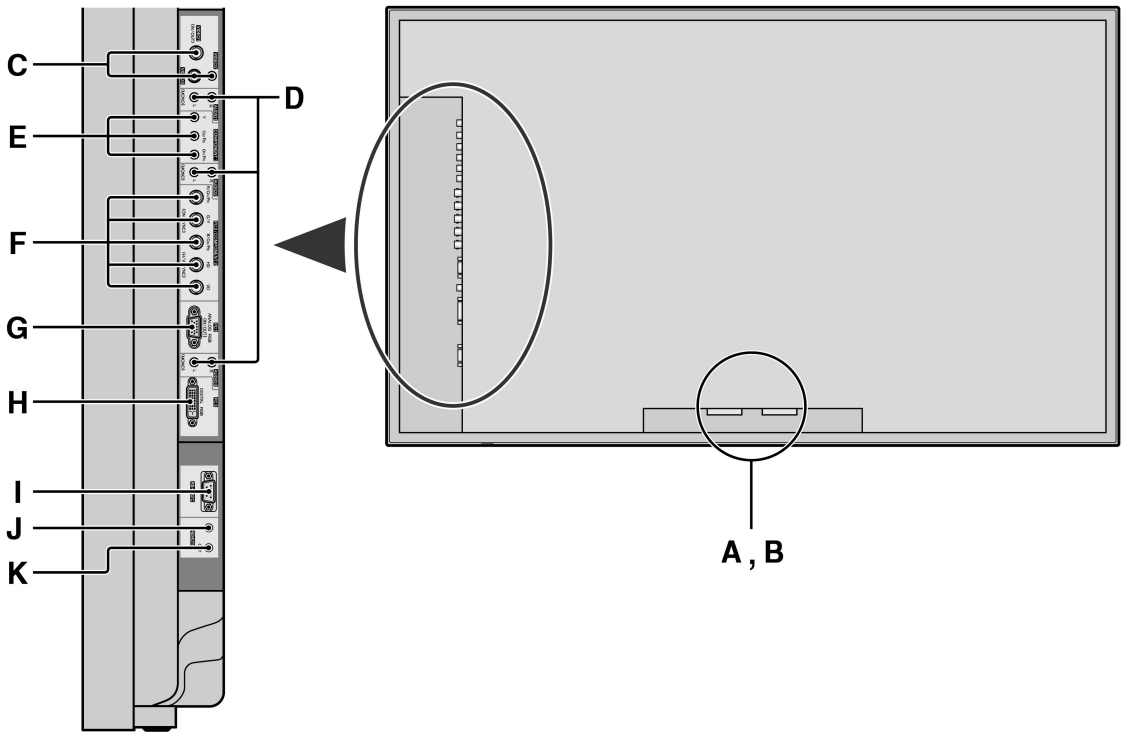
PANEL FACILITIES

■ PDP-614MX

Rear View/ Terminal Board



A AC IN
Connect the included power cord here.

B EXT SPEAKER L and R
Connect speakers (optional) here. Maintain the correct polarity. Connect the ⊕ (positive) speaker wire to the ⊕ EXT SPEAKER terminal and the ⊖ (negative) speaker wire to the ⊖ EXT SPEAKER terminal on both LEFT and RIGHT channels.
Please refer to your speaker's owner's manual.

C VIDEO1, 2, 3 (BNC, RCA, S-Video)
Connect VCR's, DVD's or Video Cameras, etc. here. VIDEO1 can be used for Input or Output.

D AUDIO1, AUDIO2, AUDIO3
These are audio input terminals.
The input is selectable. Set which video image to allot them from the SOUND menu screen.

E COMPONENT1
Connect DVD's, High Definition or Laser Discs, etc. here.

F PC2/COMPONENT2
PC2: You can connect an analog RGB signal and the syncronization signal.
COMPONENT2: You can connect DVDs, High Definition sources, Laser Discs, etc. here.
This input can be set for use with an RGB or component source.

G PC1 (mini D-Sub 15pin)
Connect an analog RGB signal from a computer, etc. here. This input can be used for Input or Output.

H PC3 (DVI 24pin)
Connect a digital signal (TMDS) from a source with a DVI output.

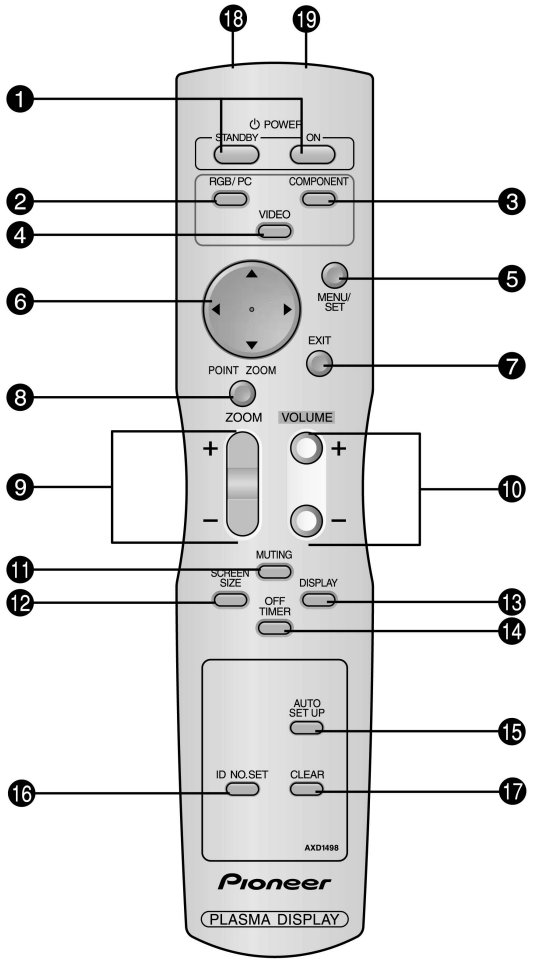
I RS-232C
Never connect any component to this connector without first consulting your Pioneer installation technician.
This connector is used for plasma display setup adjustments.

J REMOTE IN
Connect the remote cable* to the remote control's remote jack to obtain wired remote control.

K REMOTE OUT
Connect the remote cable* to the REMOTE IN jack of the other display monitor to obtain wired remote control.

* The 1/8 Stereo Mini cable must be purchased separately.

Remote Control



❶ **POWER ON/STANDBY**
Switches the power on/standby.
(This does not operate when STANDBY/ON indicator of the main unit is off.)

❷ **RGB/PC**
Press this button to select RGB/PC as the source. RGB/PC can also be selected using the INPUT/EXIT button on the monitor.

❸ **COMPONENT**
Press this button to select COMPONENT as the source. COMPONENT can also be selected using the INPUT/EXIT button on the monitor.

❹ **VIDEO**
Press this button to select VIDEO as the source.

→ VIDEO1 → VIDEO2 → VIDEO3

VIDEO can also be selected using the INPUT/EXIT button on the monitor.

❺ **MENU/SET**
Press this button to access the OSD controls.
Press this button during the display of the main menu to go to the sub menu.

❻ **CURSOR (▲ / ▼ / ◀ / ▶)**
Use these buttons to select items or settings and to adjust settings.

❼ **EXIT**
Press this button to exit the OSD controls in the main menu. Press this button during the display of the sub menu to return to the previous menu.

❽ **POINT ZOOM**
Press this button to display the pointer.

❾ **ZOOM (+ /–)**
Enlarges or reduces the image.

❿ **VOLUME (+ /–)**
Adjusts the sound volume.

⓫ **MUTING**
Mutes the sound.

⓬ **SCREEN SIZE**
Automatically detects the signal and sets the aspect ratio. SCREEN SIZE button is not active for all signals.

⓭ **DISPLAY**
Displays the source settings on the screen.

⓮ **OFF TIMER**
Activates the off timer for the unit.

⓯ **AUTO SET UP**
Press this button to adjust PHASE, CLOCK, Position, and Contrast automatically, or to switch the screen size to ZOOM mode automatically with the superimposed caption displayed fully only when the picture contains dark areas above and below the picture.

⓰ **ID NO. SET**
Set the ID number in the remote control. The remote control can then be used only for a display with the same ID number. When several displays are used together they can be controlled individually.

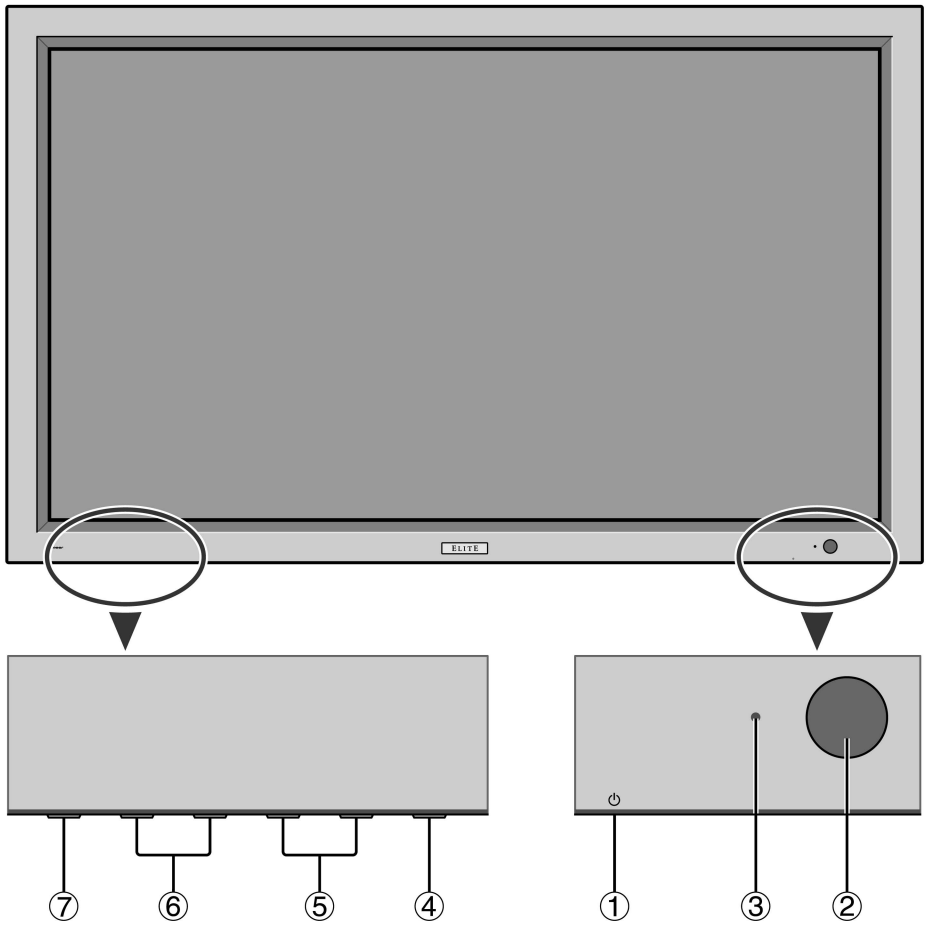
⓱ **CLEAR**
Clears the number set by the ID NO. SET button.

⓲ **Remote control signal transmitter**
Transmits the remote control signals.

⓳ **Remote Jack**
Insert the plug of the remote cable (The 1/8 Stereo Mini cable) here when using the supplied remote control in the wired condition.

■ PRO-1410HD

Front View



① **Power (⏻)**
Turns the monitor's power on and off.

② **Remote sensor window**
Receives the signals from the remote control.

③ **STANDBY/ON indicator**
When the power is on ..... Lights green.
When the power is in the standby mode ... Lights red.

④ **INPUT/EXIT**
Switches the input.
The available inputs depend on the setting of "BNC INPUT" and "RGB SELECT".
Functions as the EXIT buttons in the On-Screen Display (OSD) mode.

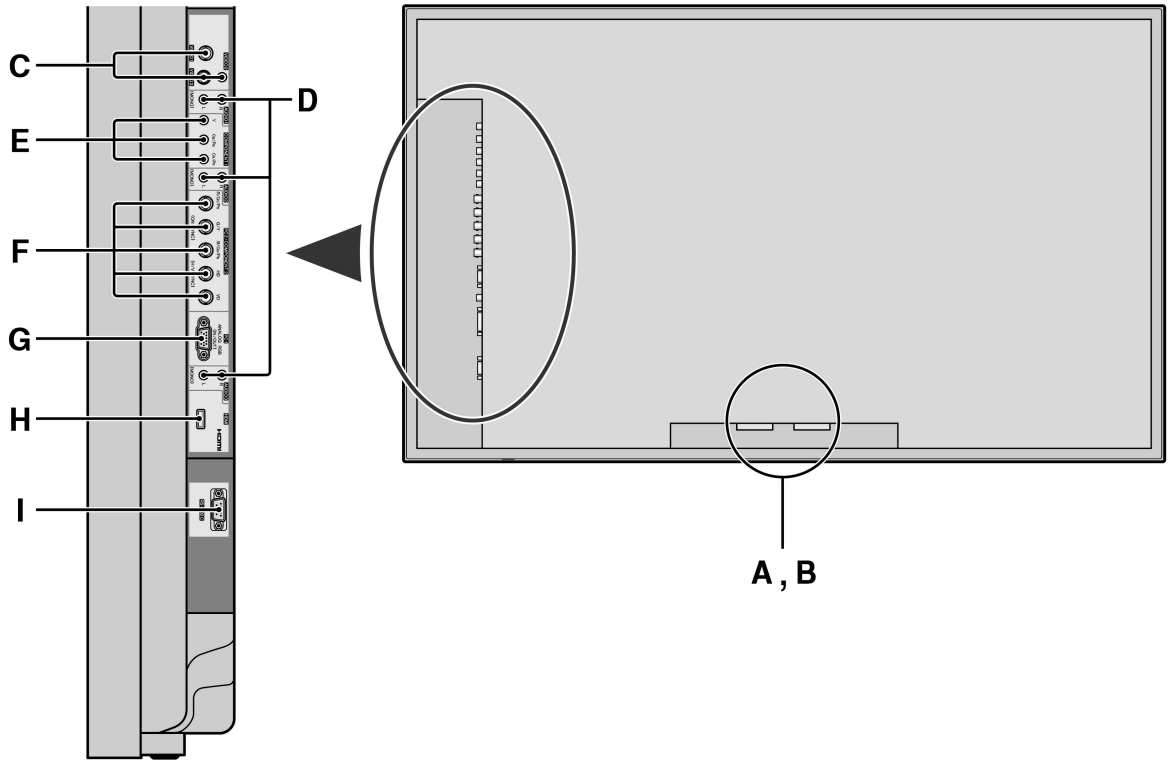
⑤ **< and >**
Functions as the CURSOR (◀ / ▶) buttons in the On-Screen Display (OSD) mode.

⑥ **VOLUME ∨ and ∧**
Adjusts the volume. Functions as the CURSOR (▲/▼) buttons in the On-Screen Display (OSD) mode.

⑦ **MENU/SET**
Sets the On-Screen Display (OSD) mode and displays the main menu.

WARNING
The Power on/off switch does not disconnect the plasma display completely from the supply mains.

Rear View/ Terminal Board



A AC IN
Connect the included power cord here.

B EXT SPEAKER L and R
Connect speakers (optional) here. Maintain the correct polarity. Connect the ⊕ (positive) speaker wire to the ⊕ EXT SPEAKER terminal and the ⊖ (negative) speaker wire to the ⊖ EXT SPEAKER terminal on both LEFT and RIGHT channels.
Please refer to your speaker's owner's manual.

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Connect VCR's, DVD's or Video Cameras, etc. here.

D AUDIO1, AUDIO2, AUDIO3
These are audio input terminals.
The input is selectable. Set which video image to allot them from the SOUND menu screen.

E COMPONENT 1
Connect DVD's, High Definition or Laser Discs, etc. here.

F PC2/ COMPONENT2
PC2: You can connect an analog RGB signal and the syncronization signal.
COMPONENT2: You can connect DVDs, High Definition sources, Laser Discs, etc. here.
This input can be set for use with an RGB or component source.

G PC1 (D-Sub)
Connect an analog RGB signal from a computer, etc. here.

H HDMI
Connect a digital signal from a source with a HDMI output.

I RS-232C (D-Sub)
Never connect any component to this connector without first consulting your Pioneer installation technician.
This connector is used for plasma display setup adjustments.

HIGH-DEFINITION MULTIMEDIA INTERFACE

HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

CONTRAST OF MISCELLANEOUS PARTS

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

■ CONTRAST TABLE for PDP-614MX

PDP-614MX/LUC and PX-61XM3A are constructed the same except for the following:

Symbol	Mark	Symbol and Description	Part No.		Remarks
			PX-61XM3A	PDP-614MX/LUC	
		PWB ASSYS			
A01		MAIN1 PWB ASSY	937G3M01	937J8M01	
A02		232C PWB ASSY	937F7SA1	937J8SA1	
A03		CTL PWB ASSY	937F7SB1	937J8SB1	
A04		PWR PWB ASSY	937F7SC1	937J8SC1	
A05		LED PWB ASSY	937F7SD1	937J8SD1	
A06		SENB PWB ASSY	937F7SE1	937J8SE1	
A07		SENC PWB ASSY	937F7SF1	937J8SF1	
A08		SEND PWB ASSY	937F7SG1	937J8SG1	
A09		AUDIO PWB ASSY	937F7SH1	937J8SH1	
A10		CCD PWB ASSY	937F6C01	Not used	
		MISCELLANEOUS ELECTRICAL PARTS			
CN-PI		CN 2-WP(PI) 360W, 1672-18	7SWXV002	Not used	
		MECHANISM PARTS			
SRW18		PL-CPIMS*3*10*15KFE	Not used	29N01431	
M11		GASKET(L30*10*T10)	Not used	29C01761	
M12		GASKET(L50*10*T10)	Not used	29C01771	
M13		GASKET(L120*10*T10)	Not used	29C01781	
M14		GASKET(L30*6*T3)	Not used	29C01791	
M15		GASKET(L140*13*T1.5)	Not used	29C01801	
M16		FRONT PANEL(61XM2)	29D00612	Not used	
M16		FRONT FRAME ASSY(614MX)	Not used	29DS0591	
M24		COVER CTL	29F00781	Not used	
M24		COVER CTL-G	Not used	29F01121	
M26		CONTROL BUTTON	29G00311	Not used	
M26		CONTROL BUTTON-G	Not used	29G00401	
M50		INDICATOR(50XM3)	29K00421	Not used	
M52		TERMINAL SHEET M(50XM3)W	29K00571	Not used	
M52		TERMINAL SHEET M(614MX)	Not used	29K00711	
M53		TERMINAL SHEET S(50XM3)W	29K00581	Not used	
M53		TERMINAL SHEET S(614MX)	Not used	29K00721	
M54		FILTER(61A)	29KS0211	Not used	
M54		FILTER(61B)	Not used	29KS0171	
M57	NSP	NAME PLATE(61XM3A)	29L05811	Not used	
M57	NSP	NAME PLATE(PDP-614MX)	Not used	29L06201	
M62		SHILDING TAPE AL(25*50M)	29C01911	Not used	

Symbol	Mark	Symbol and Description	Part No.		Remarks
			PX-61XM3A	PDP-614MX/LUC	
		PRINTED & PACKING MATERIALS			
SHT001		INFORMATION 61XM3A	7S801371	Not used	
SHT002		OPERATION 50XM4A/61XM3A	7S801381	Not used	
SHT002		INSTRUCTIONS(PDP-614MX)	Not used	7S801711	
SHT003		NOTICE SHEET US(PDP)	78038622	Not used	
PK14		CARTON BOX(61XM3)	29MS3091	Not used	
PK14		CARTON BOX T(PDP-614MX)	Not used	29M01051	
PK16		REM-T HAND UNIT RP-114	3S120221	Not used	
PK16		REM-T HAND UNIT AXD1498	Not used	3S120241	
PK31	NSP	MODEL NAME LABEL	29L05951	Not used	
PK33		POWER CORD CASE	Not used	29MS3241	

■ CONTRAST TABLE for PRO-1410HD

PRO-1410HD/LUC and PX-61XM3A are constructed the same except for the following:

Symbol	Mark	Symbol and Description	Part No.		Remarks
			PX-61XM3A	PRO-1410HD/LUC	
		PWB ASSYS			
A01		MAIN1 PWB ASSY	937G3M01	937J9M01	
A02		232C PWB ASSY	937F7SA1	937J9SA1	
A03		CTL PWB ASSY	937F7SB1	937J9SB1	
A04		PWR PWB ASSY	937F7SC1	937J9SC1	
A05		LED PWB ASSY	937F7SD1	937J9SD1	
A06		SENB PWB ASSY	937F7SE1	937J9SE1	
A07		SENC PWB ASSY	937F7SF1	937J9SF1	
A08		SEND PWB ASSY	937F7SG1	937J9SG1	
A09		AUDIO PWB ASSY	937F7SH1	937J9SH1	
A10		CCD PWB ASSY	937F7SH1	Not used	
		MISCELLANEOUS ELECTRICAL PARTS			
CN-PI		CN 2-WP(PI) 360W, 1672-18	7SWXV002	Not used	
		MECHANISM PARTS			
SRW18		PL-CPIMS*3*10*15KFE	Not used	29N01431	
SRW38		PL-CPIMS*4*16*3KF	Not used	910E4066	
SRW39		PL-CPIMS*4*16*3KF	Not used	910E4066	
SRW40		PL-CPIMS*4*16*3KF	Not used	910E4066	
SRW41		CBIPS*4*12*15KFE	Not used	29N01401	
SRW42		CBIPS*4*12*15KFE	Not used	29N01401	
SRW43		CBIPS*4*12*15KFE	Not used	29N01401	
SRW44		CPIMS*4*8*3KF	Not used	29N01521	
SRW45		CBIPS*4*12*15KFE	Not used	29N01401	
M11		GASKET(L30*10*T10)	Not used	29C01761	
M12		GASKET(L50*10*T10)	Not used	29C01771	
M13		GASKET(L120*10*T10)	Not used	29C01781	
M14		GASKET(L30*6*T3)	Not used	29C01791	
M15		GASKET(L140*13*T1.5)	Not used	29C01801	
M16		FRONT PANEL(61XM2)	29D00612	Not used	
M28		TERMINAL PANEL M(50XM3)	29H02551	Not used	
M28		TERMINAL PANEL M(50XR4)	Not used	29H03491	
M50		INDICATOR(50XM3)	29K00421	Not used	
M52		TERMINAL SHEET M(50XM3)W	29K00571	Not used	
M52		TERMINAL SHEET M(ELITE)	Not used	29K00731	
M53		TERMINAL SHEET S(50XM3)W	29K00581	Not used	
M53		TERMINAL SHEET S(ELITE)	Not used	29K00741	
M54		FILTER(61A)	29KS0211	Not used	
M54		FILTER(61B)	Not used	29KS0171	
M57	NSP	NAME PLATE(61XM3A)	29L05811	Not used	
M57	NSP	NAME PLATE(PRO-1410HD)	Not used	29L06221	
M62		SHILDING TAPE AL(25*50M)	29C01911	Not used	
M73		CORNER PIECE OUT	Not used	29H03651	
M74		CORNER PIECE IN	Not used	29H03661	
M75		LED LENS-E	Not used	29K00761	
M76		IR CAP	Not used	29K00771	
M77		ELITE BADGE	Not used	29K00811	
M78		OVER BEZEL TOP	Not used	29P01501	
M79		OVER BEZEL SIDE	Not used	29P01511	
M80		OVER BEZEL BOTTOM	Not used	29P01521	
M81		CORNER BRACKET	Not used	29P01541	
M82		CORNER PLATE SASSY-1	Not used	29PS0911	
M83		CORNER PLATE SASSY-2	Not used	29PS0921	
M84		SIDE PLATE SASSY	Not used	29PS0931	
M85		SHIELDING TAPE 25X25	Not used	29J01361	

Symbol	Mark	Symbol and Description	Part No.		Remarks
			PX-61XM3A	PRO-1410HD/LUC	
		PRINTED & PACKING MATERIALS			
SHT001		INFORMATION 61XM3A	7S801371	Not used	
SHT002		OPERATION 50XM4A/61XM3A	7S801381	Not used	
SHT002		INSTRUCTIONS PRO-1410HD	Not used	7S801721	
SHT003		NOTICE SHEET US(PDP)	78038622	Not used	
PK05		CUSHION(TL)	29MS2611	Not used	
PK05		CUSHION(TL)E	Not used	29MS3161	
PK06		CUSHION(TC)	29MS2621	Not used	
PK06		CUSHION(TC)E	Not used	29MS3171	
PK07		CUSHION(TR)	29MS2631	Not used	
PK07		CUSHION(TR)E	Not used	29MS3181	
PK08		CUSHION(BL)	29MS2641	Not used	
PK08		CUSHION(BL)E	Not used	29MS3191	
PK09		CUSHION(BC)	29MS2651	Not used	
PK09		CUSHION(BC)E	Not used	29MS3201	
PK10		CUSHION(BR)	29MS2661	Not used	
PK10		CUSHION(BR)E	Not used	29MS3211	
PK11		CUSHION(BTM-L)	29MS2671	Not used	
PK11		CUSHION(BTM-L)E	Not used	29MS3221	
PK12		CUSHION(BTM-R)	29MS2681	Not used	
PK12		CUSHION(BTM-R)E	Not used	29MS3231	
PK14		CARTON BOX(61XM3)	29MS3091	Not used	
PK14		CARTON BOX T(PRO-1410HD)	Not used	29M01071	
PK16		REM-T HAND UNIT RP-114	3S120221	Not used	
PK16		REM-T HAND UNIT AXD1499	Not used	3S120251	
PK17		BAG,POLYETHYLENE(150*370)	24813191	Not used	
PK28		BAG,POLYETHYLENE(150*370)	Not used	24813191	
PK31	NSP	MODEL NAME LABEL	29L05951	Not used	
PK33		POWER CORD CASE	Not used	29MS3241	

HOW TO DIAGNOSE THE PDP MODULE (PDP-NP61C2MF01)

1. List of tools required for repair
2. Points of failure diagnosis for a Board Assy (PKG)
3. Replacement method of a Board Assy (PKG) and notes on replacement
4. Adjustments after replacement of parts in the module
5. Operation check

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1. List of tools required for repair

a) Phillips screwdriver : For detaching/reattaching PKGs
b) Antistatic wrist strap :
To be used when electronic components, such as PKGs, are to be handled
c) Signal generator (PC, etc.) : For voltage adjustment and display check
d) Powe : For voltage adjustment and display check
f) Tester : For cable check, voltage adjustment, etc.
g) Cushion : To be used when the PKGs are to be replaced

Note: Be sure to wear a wrist strap when you detach/reattach PKGs (Board Assy) to protect electronic components from being damaged by electrostatic charges.

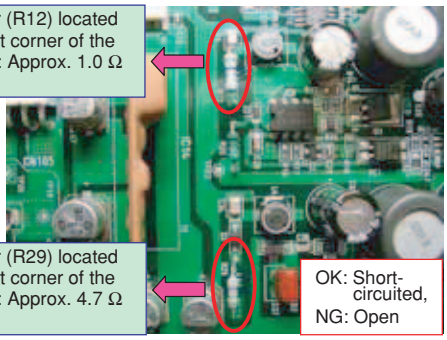
2. Points of failure diagnosis for a Board Assy (PKG)

The fuses and/or fusible resistors shown in the photos below may be blown by electric surges caused by a failure. In such a case, replace the corresponding PKG.

Failure diagnosis of the Scanning PKG

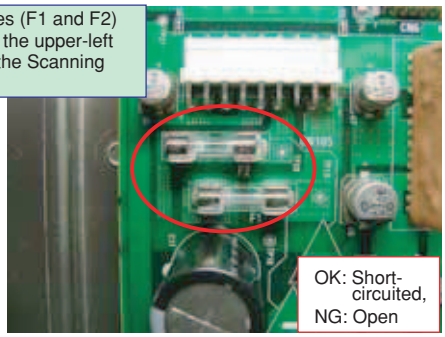
Fusible resistor (R12) located at the upper-left corner of the Scanning PKG: Approx. 1.0 Ω (1/2 W)

Fusible resistor (R29) located at the upper-left corner of the Scanning PKG: Approx. 4.7 Ω (1/4 W)



OK: Short-circuited,
NG: Open

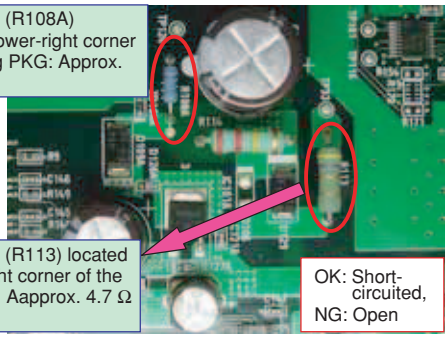
Glass fuses (F1 and F2) located at the upper-left corner of the Scanning PKG



OK: Short-circuited,
NG: Open

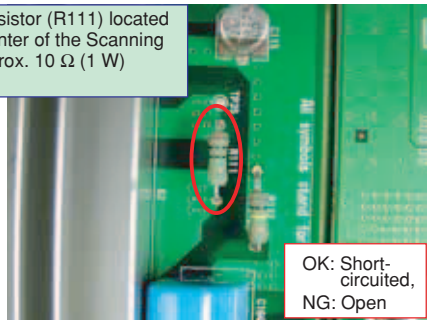
Fusible resistor (R108A) located at the lower-right corner of the Scanning PKG: Approx. 2.2 Ω (1 W)

Fusible resistor (R113) located at the lower-right corner of the Scanning PKG: Aapprox. 4.7 Ω (2 W)



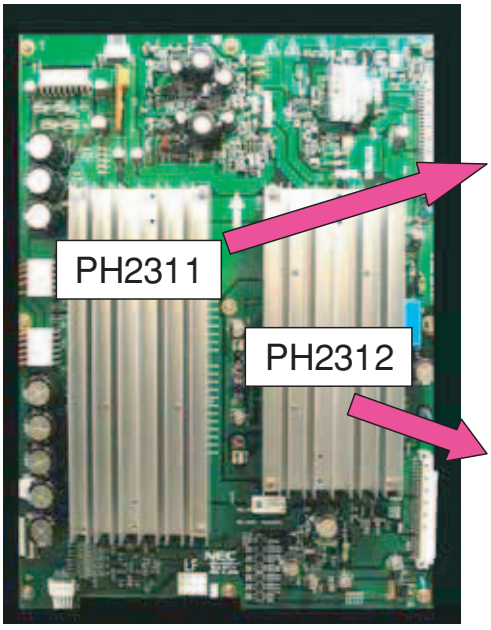
OK: Short-circuited,
NG: Open

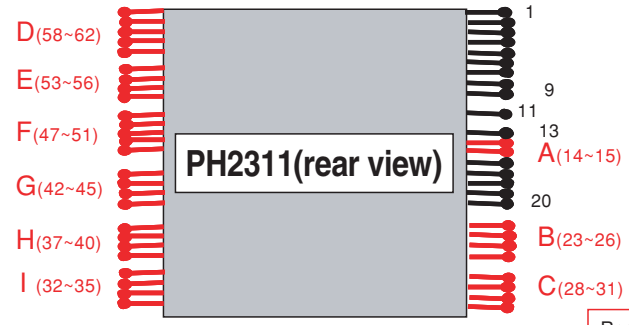
Fusible resistor (R111) located at right center of the Scanning PKG: Approx. 10 Ω (1 W)



OK: Short-circuited,
NG: Open

Failure diagnosis of the Power HIC on the Scanning PKG





Check points

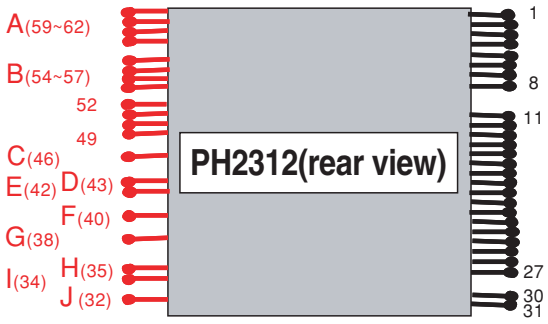
Between A and B
Between B and H

Between C and I

Between D and E
Between F and G

Result:
OK: k Ω or more,
NG: Short-circuited

Note: A, D, and E are ground.



Check points

Between A and B
Between C and D

Between E and F

Between G and H
Between I and J

Result:
OK: k Ω or more,
NG: Short-circuited

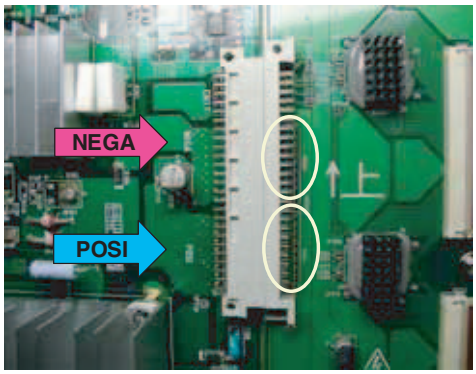
Note: C and G are ground.

Failure diagnosis of the Scanning IC

Check with a tester the resistance value between any pins indicated as NEGA and POSI of the connector in the photos below. If a positive and a negative pin of the connector on the Scanning Relay PKGs are short-circuited and remains short-circuited even after the connectors on the Scanning PKG and Scanning Relay PKG are disconnected, the Scanning IC on the Scanning Relay PKG is in failure.

Scanning PKG

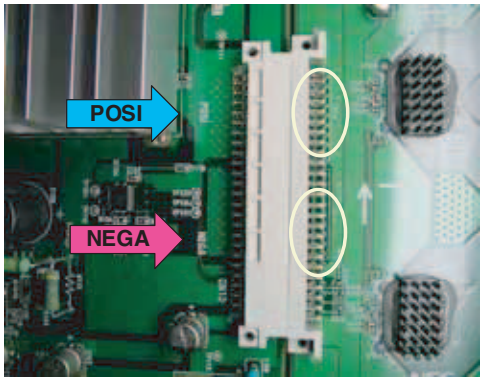
Scanning Relay PKG (upper connector)



Check points Between any pins of NEGA and POSI blocks

Scanning PKG

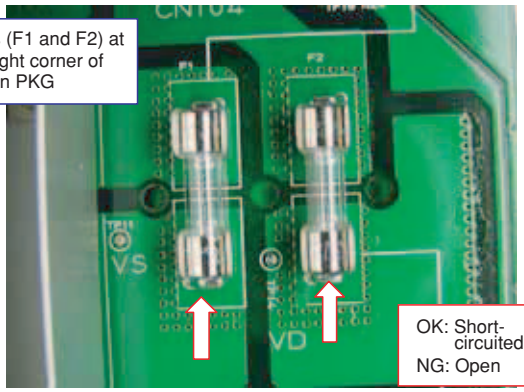
Scanning Relay PKG (lower connector)



OK: k Ω or more,
NG: Short-circuited

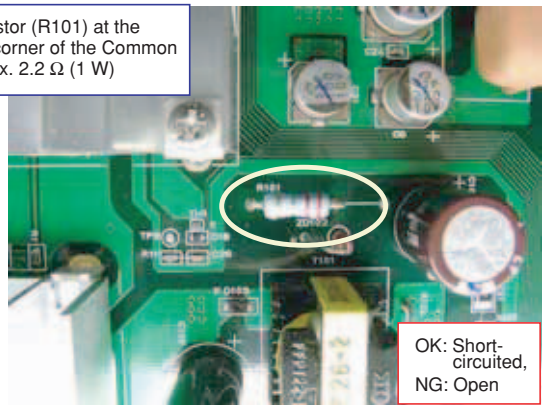
Failure diagnosis of the Common PKG

Glass fuses (F1 and F2) at the upper-right corner of the Common PKG



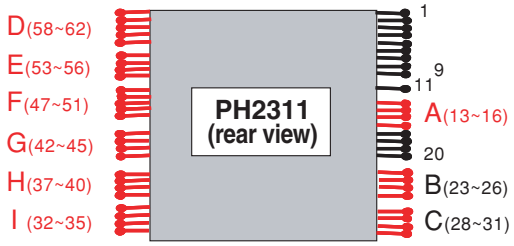
OK: Short-circuited,
NG: Open

Fusible resistor (R101) at the lower-right corner of the Common PKG: Approx. 2.2 Ω (1 W)



OK: Short-circuited,
NG: Open

Failure diagnosis of the Power HIC on the Common PKG



Check points

Between A and B
Between B and H
Between C and I

Between D and E
Between F and G

Result:
OK: k Ω or more,
NG: Short-circuited

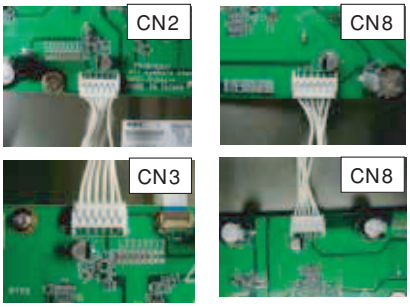
Note: A and D are ground.

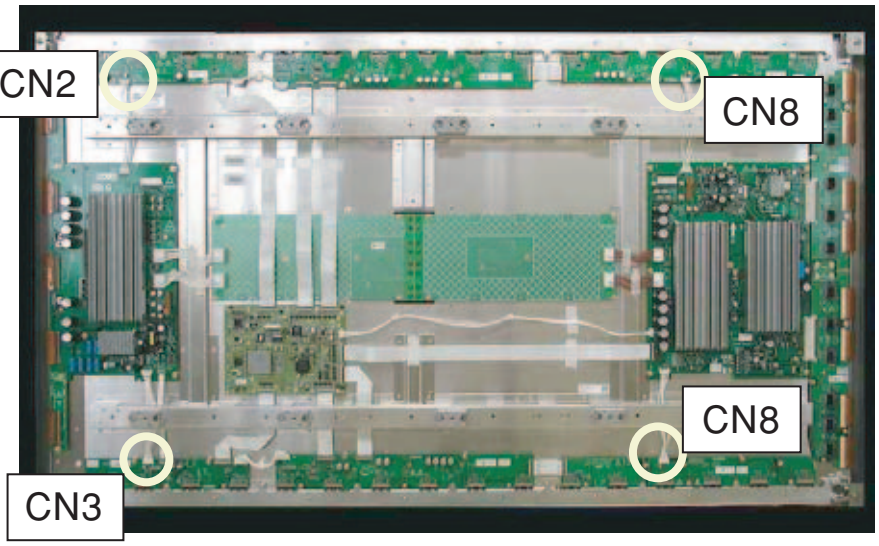
Failure diagnosis of the Data HIC

Failure symptom: The image in any block of the screen is not displayed.

Check with a tester between Pin 5 or 6 (Vd line of Data IC) and ground of each Signal Relay PKG.

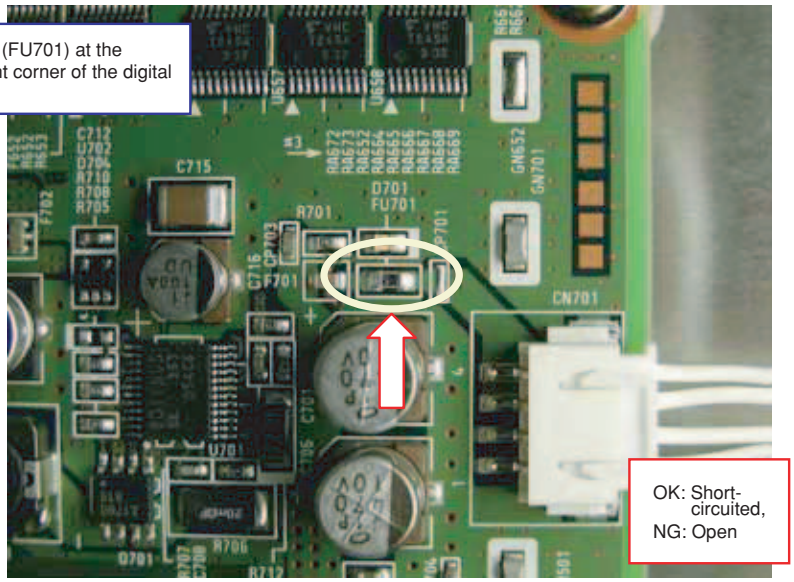
OK: Open
NG: Short-circuited,





Failure diagnosis of the Digital PKG

Chip fuse (FU701) at the upper-right corner of the digital PKG



OK: Short-circuited,
NG: Open

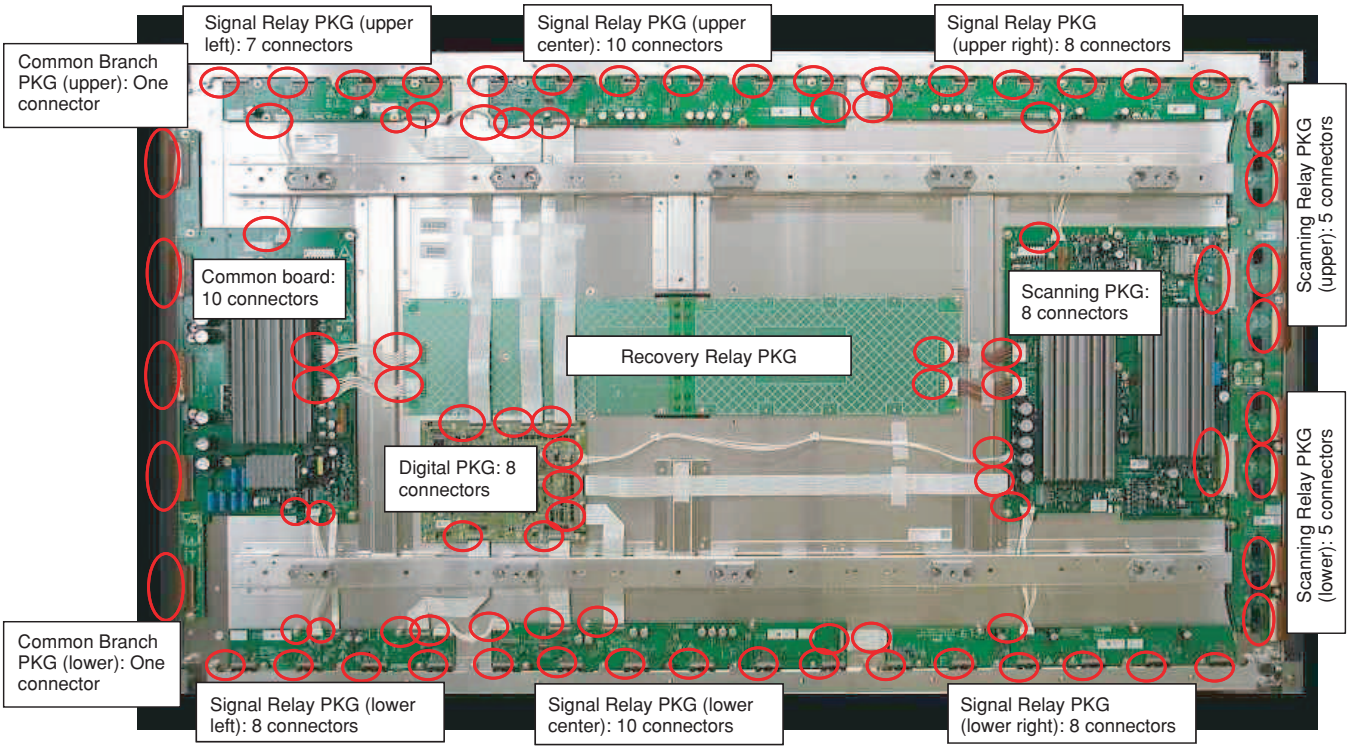
3. Replacement method for a Board Assy (PKG) and notes on replacement

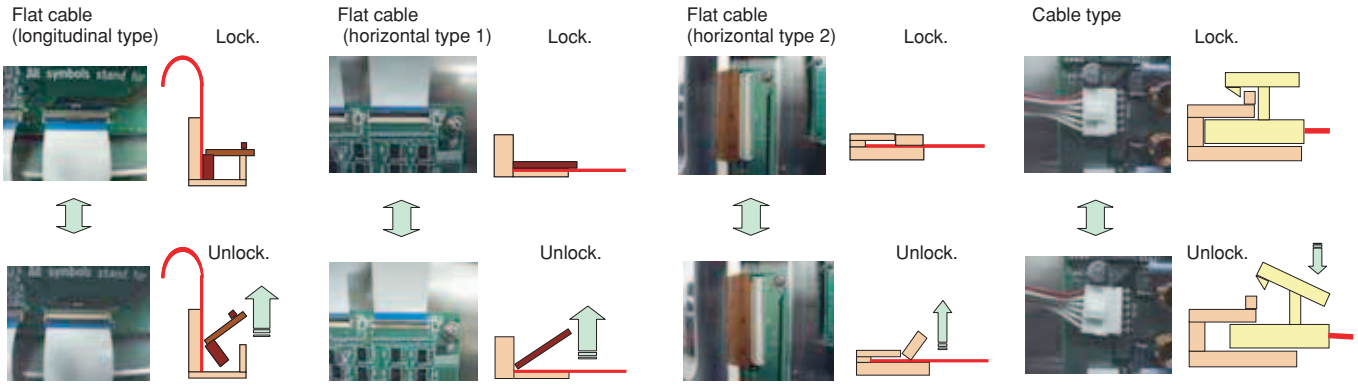
Preparation

Place a cushion on the workbench and set the module to be repaired on it.
Note: With the glass surface facing downward, be sure that the entire glass surface is against the cushion.

Disconnection of connectors and cables

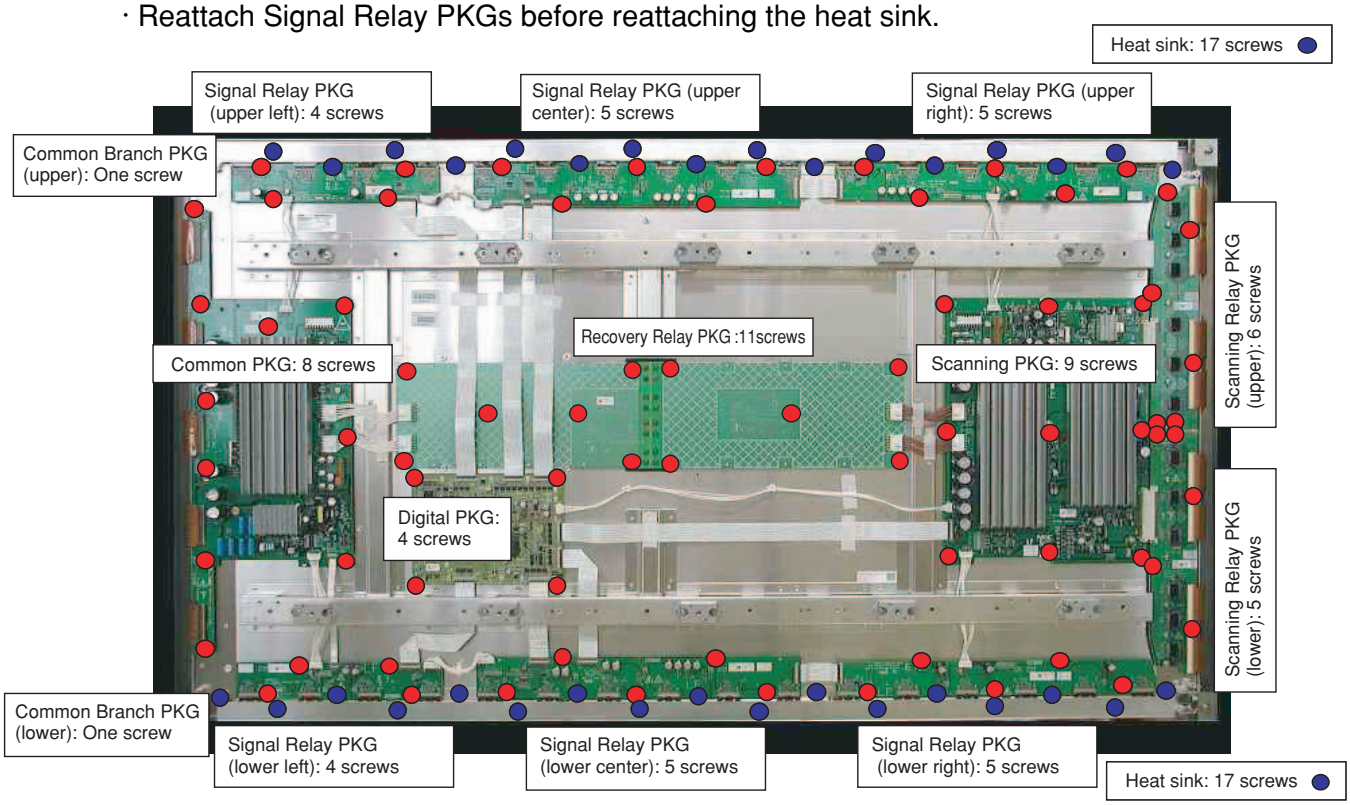
Disconnect all the connectors on the PKG to be repaired.
(When a Signal Relay PKG is to be removed, remove the heat sink beforehand.)





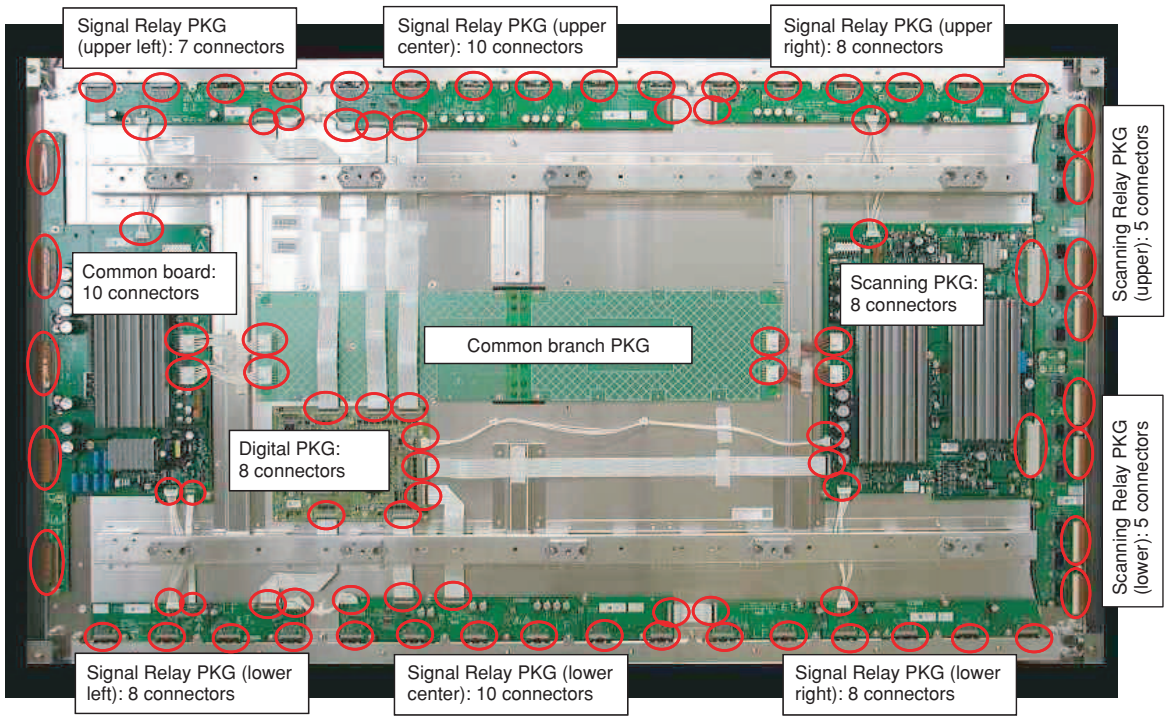
How to remove/reattach the Board Assy (PKGs)

Notes:
- Be sure not to drop a screwdriver or screw on a PKG or a cable.
- When removing/reattaching a screw, be sure not to leave any tiny metal shavings, because they may cause a failure.
- Before removing Signal Relay PKGs, remove the heat sink.
- Be sure not to apply any stress to a PKG, connector, or cable when reattaching them.
- Reattach Signal Relay PKGs before reattaching the heat sink.



Confirmation of connector connection

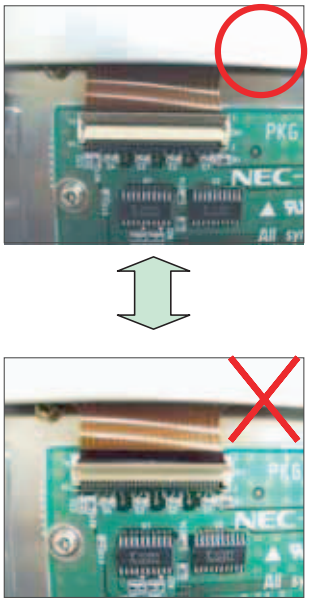
Check whether or not the connectors indicated by circles are correctly connected.



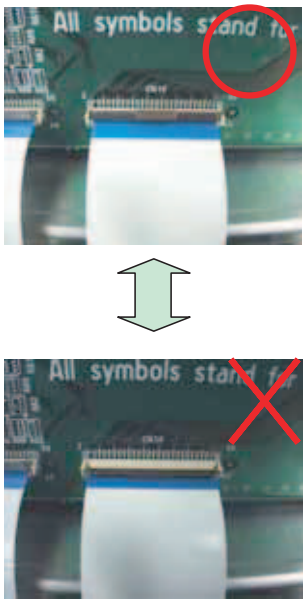
Confirmation of connector connection and locking statuses

○: OK ×: NG

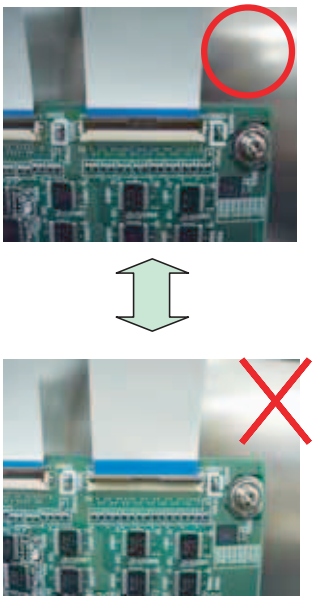
Between the Data IC and Signal Relay PKG (photo)



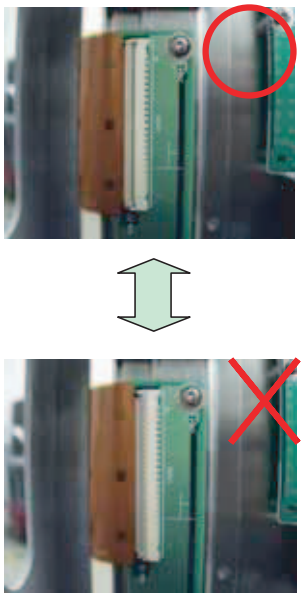
Between the Signal Relay PKG (photo) and Digital PKG



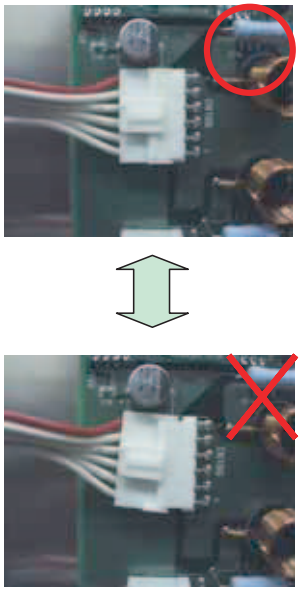
Between the Signal Relay PKG and Digital PKG (photo)



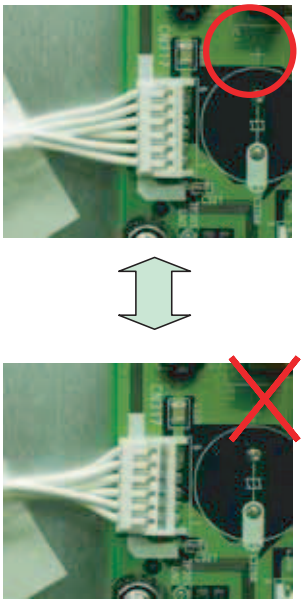
Between the panel and Common PKG (photo)



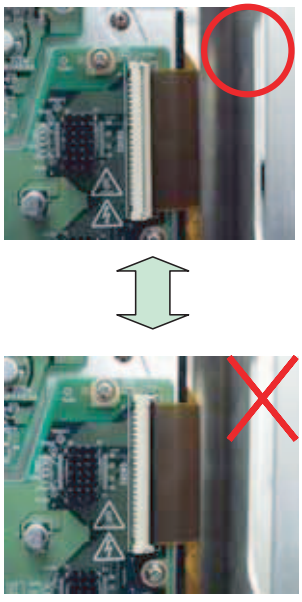
Between the Scanning PKG (photo) and Recovery Relay PKG



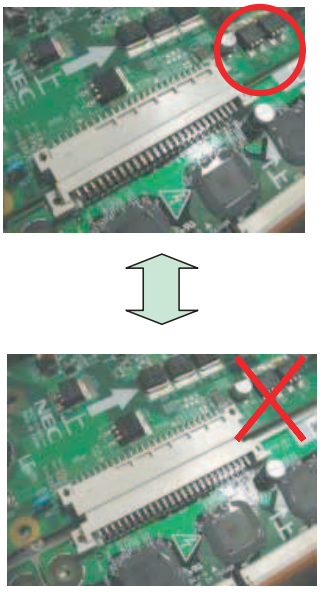
Between the Signal Relay PKG and Scanning PKG (photo)



Between the Scanning Relay PKG (photo) and panel

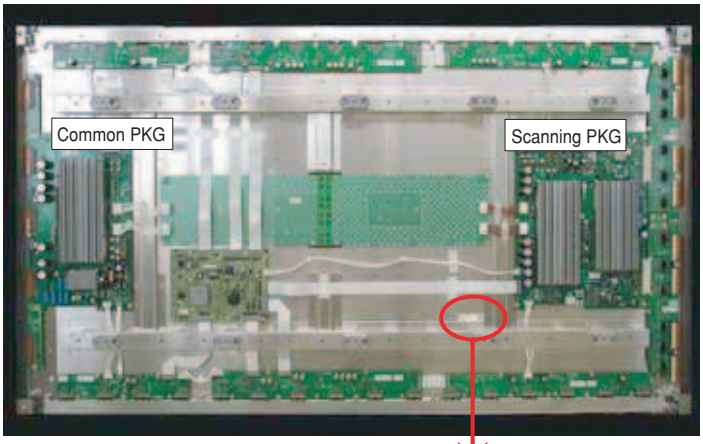


Between the Scanning PKG (photo) and Signal Relay PKG (photo)



4. Adjustments after replacement of parts in the module

After the module has been reassembled, adjust the panel-drive voltages as indicated below: Check Vbw, Vsw, and Vp voltages (values specific for each panel) indicated on the drive-voltage label.



Drive-voltage label

Vbw Vsw Vp

(s185.0 / d65.0)115.2/209.9/199.8

****

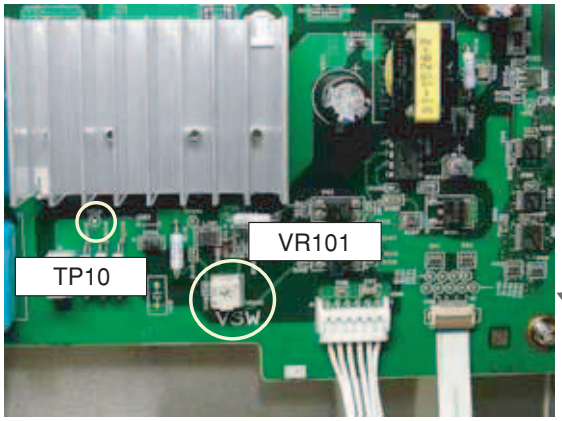
311200062

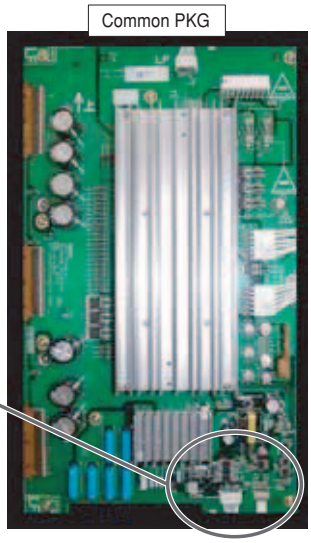
Example

Vbw : 115.2V
Vsw : 209.9V
Vp : 199.8V

Vsw adjustment inside the Common PKG

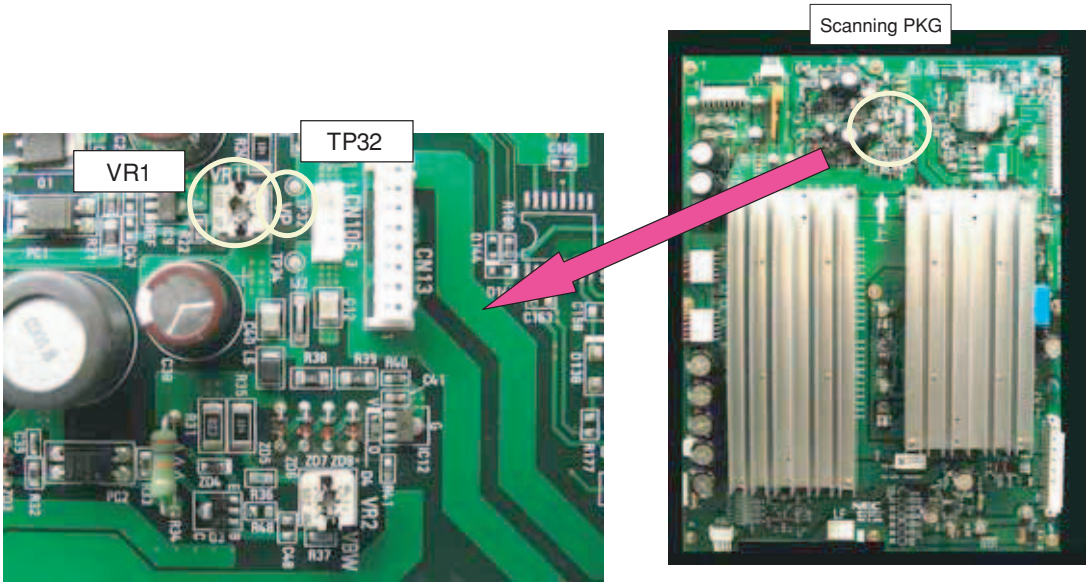
Points to measure: Voltage between TP10 and GND (chassis GND) on the Common PKG
Adjustment method: Adjust VR101 so that the Vsw value of TP10 becomes in the range of ±0.5 V of the Vsw value indicated on the drive-voltage label.





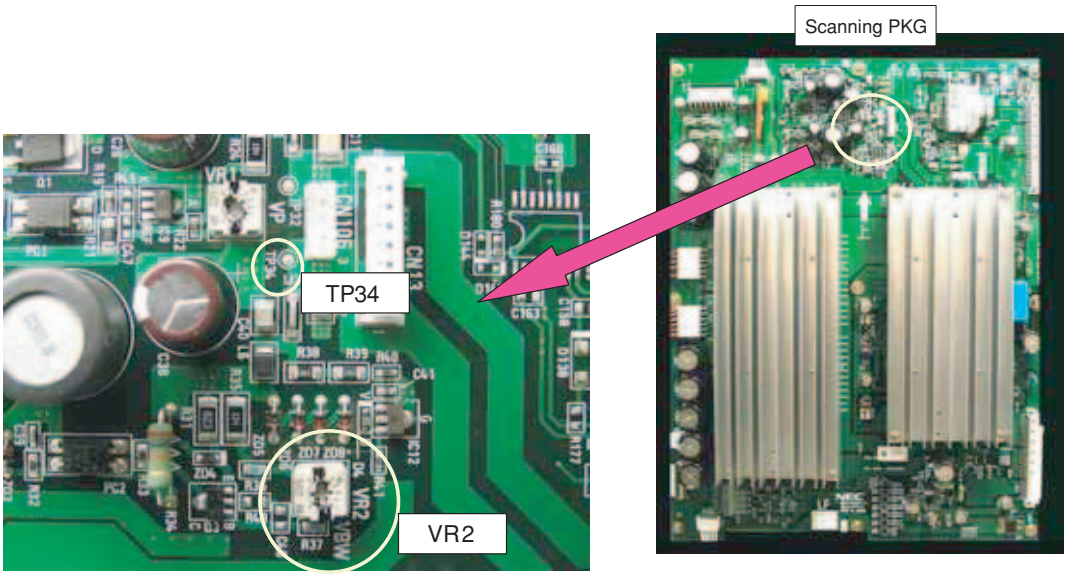
Vp adjustment inside the Scanning PKG

Points to measure: Voltage between TP32 and GND (chassis GND) on the Scanning PKG
Adjustment method: Adjust VR1 so that the Vp value of TP32 becomes in the range of ±1.5 V of the Vp value indicated on the drive-voltage label.



Vbw adjustment inside the Scanning PKG

Points to measure: Voltage between TP34 and GND (chassis GND) on the Scanning PKG
Adjustment method: Adjust VR2 so that the Vbw value of TP34 becomes in the range of ±0.5 V of the Vbw value indicated on the drive-voltage label.



5. Operation check

After replacing the module or parts inside the module, perform aging for 30 minutes or more while displaying a fully white screen.
After that, check the screen by displaying a fully red, fully green, and fully blue screen, color bars, and gray scale.

Note: If any flashing or luminescent spots are recognized during display check after a long period of storage of the module, perform aging with a fully white screen displayed for another hour or so.

TROUBLESHOOTING

• Problems in the power supply, such as “Failure in Power ON” or “LED flashing or lighting (alarm display)”

→ 1. Go to Power failure (P8-2).

• Problems in the images, such as “No pictures available”

→ 2. Go to Image errors (P8-8).

• No video loop-out signal is generated.

→ The MAIN PWB is faulty.

• “Remote control not effective”

→ 3. Go to Audio errors (P8-14).

• “Remote control not effective”

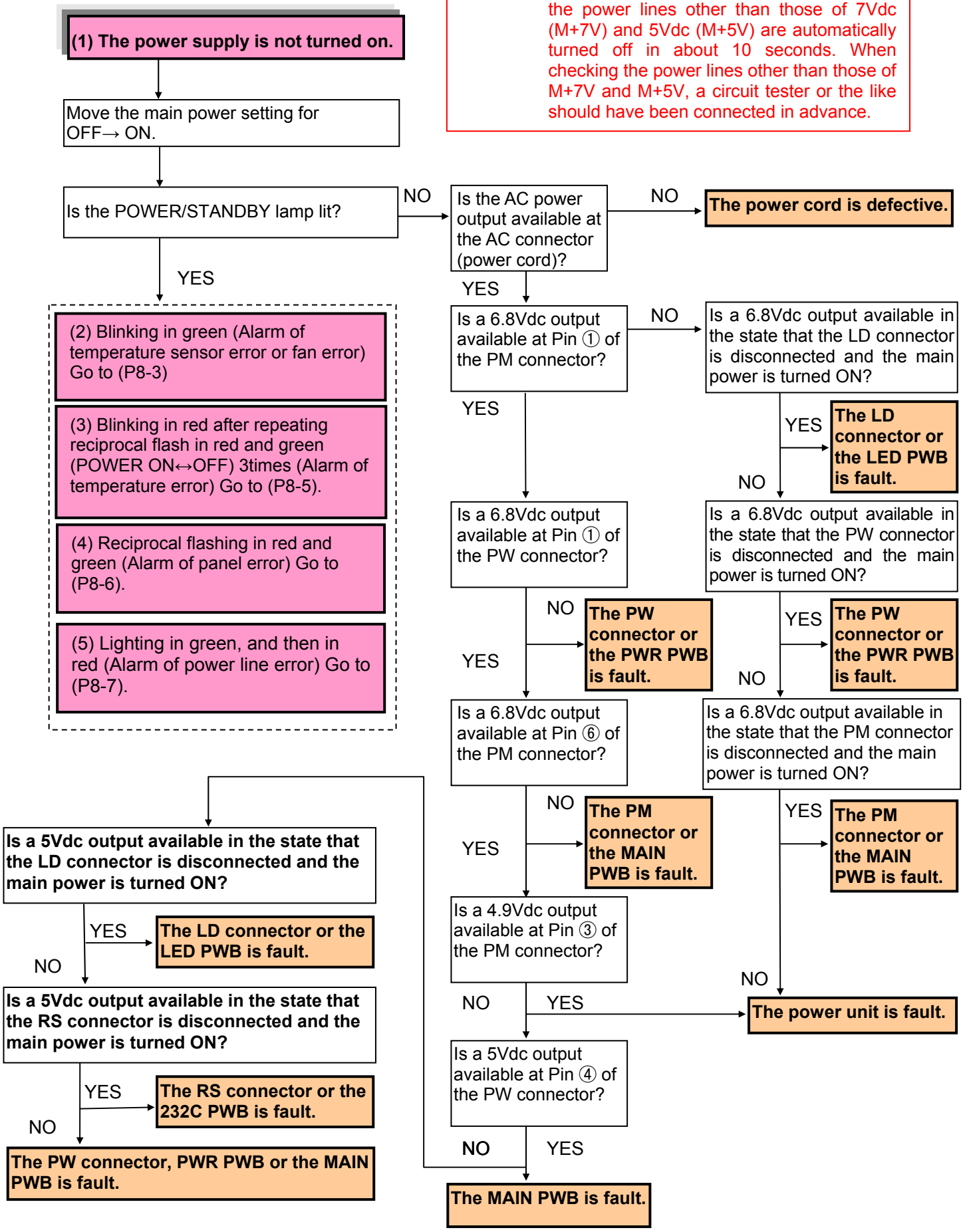
→ 4. Go to Remote control not effective (P8-15).

• The closed caption is displayed incorrectly. (PX-***A only)**

→ 5. Go to "The closed caption (CC) is displayed incorrectly." (P8-17).

1. Power failure

(Caution) If any abnormality is sensed in such a manner that the LED flashes or lights, all the power lines other than those of 7Vdc (M+7V) and 5Vdc (M+5V) are automatically turned off in about 10 seconds. When checking the power lines other than those of M+7V and M+5V, a circuit tester or the like should have been connected in advance.



(2) Blinking in green

① Alarm of temperature sensor error

Blinking in green (intervals of 2 seconds)

Turn off the main power supply.

Pressing the [MENU] key of the product, turn on the main power supply to cancel alarming.

Press the remove control keys in the sequential order of [POWER ON] → [POWER ON] → [EXIT] → [DISPLAY] and enter the factory adjustment menu. Press the [MENU/ENTER] key to display the FAN SET menu (P2/11).

FAN SET

FAN SET

FAN MODE	H	CONT ENA	–
FAN OFF/L	–	CONT UP	–
FAN L/M	–	CONT TIME	–
FAN M/H	–	UP STEP	2
SF SAVE	075	DOWN STEP	2
PLE SAVE	070	READ TIME	60
T ALM	095	TEMP LEVEL	1
RET TME	030		
PLE TIME	001		
T1 030	T2 025		
T3 030	T4 –	MODE 2	
IC ERROR	–		
[MENU/ENTER] NEXT		[EXIT] PREV	2/11

Is there a display of numerals (almost room temperatures) at the right side of [T1, T2, T3]?

YES → **The MAIN PWB is fault.**

NO

Is there a display of [-] for all the numerals at the right side of [T1, T2, T3]?

NO → **When a [-] display is presented, the PWB with the symbol shown below is fault. T1: SEND PWB, T2: SENB PWB, T3: SENC PWB**

YES

Are there a 3.3Vdc output at Pin ③ and a clock signal (3.3Vpp) at Pins ① and ④ of the TS in the state that the TS connector is disconnected and the main power supply is turned on?

NO → Are there a 3.3Vdc output at Pin ③ and a clock signal (3.3Vpp) at Pins ① and ④ of the TR in the state that the TR connector is disconnected and the main power supply is turned on?

NO → Are there a 3.3Vdc output at Pin ③ and a clock signal (3.3Vpp) at Pins ① and ④ of the TM in the state that the TM connector is disconnected and the main power supply is turned on?

NO → **The MAIN PWB is fault.**

YES → **The TS connector or the SENC PWB is fault.**

YES → **The TR connector or the SEND PWB is fault.**

YES → **The TM connector or the SENB PWB is fault.**

② Alarm of fan error

Blinking in green (intervals of 0.5seconds)

Turn off the main power supply.

Pressing the [MENU] key of the product, turn on the main power supply to cancel alarming.

Is the fan running?
(Caution) When alarming is canceled, [FAN MODE] of FAN SET (P2/11) in the factory adjustment menu automatically moves from [ENA] to [H], thus causing the fan to run.

FAN SET

FAN MODE	ENA	CONT ENA	–
FAN OFF/L	–	CONT UP	–
FAN L/M	–	CONT TIME	–
FAN M/H	–	UP STEP	2
FAN SAVE	075	DOWN STEP	2
PLE SAVE	070	READ TIME	60
T ALM	095	TEMP LEVEL	1
RET TME	030		
PLE TIME	001		
T1 030	T2 025		
T3 030	T4 –	MODE 2	
IC ERROR	–		
[MENU/ENTER] NEXT		[EXIT] PREV	2/11

FAN SET

FAN MODE	H	CONT ENA	–
FAN OFF/L	–	CONT UP	–
FAN L/M	–	CONT TIME	–
FAN M/H	–	UP STEP	2
FAN SAVE	075	DOWN STEP	2
PLE SAVE	070	READ TIME	60
T ALM	095	TEMP LEVEL	1
RET TME	030		
PLE TIME	001		
T1 030	T2 025		
T3 030	T4 –	MODE 2	
IC ERROR	–		
[MENU/ENTER] NEXT		[EXIT] PREV	2/11

YES → Is there a 3.3Vdc output at Pin ③ of the FA and FB, FC connectors?
YES → **The fan is out of order on the side where a 3.3Vdc output is generated.**
NO → **The MAIN PWB is fault.**

NO → Is there a voltage output of 11.3Vdc for PX-42XM3/XR3, 11.2Vdc for PX-50XM4/XR4, and 9.3Vdc for PX-61XM3/XR3, respectively, at Pin 1 of the FA, FB, and FC connectors?
YES → **The FAN-A/FAN-B/FAN-C is fault.**

(Caution) The FAN-C and FC connectors are used only for the 61XM3 Series.

NO → Is there a voltage output of 11.3Vdc for PX-42XM3/XR3, 11.2Vdc for PX-50XM4/XR4, and 9.3Vdc for PX-61XM3/XR3, respectively, when the FA connector is disconnected and the mains power is turned ON?
YES → **The FAN-A is fault.**

NO → Is there a voltage output of 11.3Vdc for PX-42XM3/XR3, 11.2Vdc for PX-50XM4/XR4, and 9.3Vdc for PX-61XM3/XR3, respectively, when the FB connector is disconnected and the mains power is turned ON?
YES → **The FAN-B is fault.**

NO → Is there a voltage output of 11.3Vdc for PX-42XM3/XR3, 11.2Vdc for PX-50XM4/XR4, and 9.3Vdc for PX-61XM3/XR3, respectively, when the FC connector is disconnected and the mains power is turned ON?
YES → **The FAN-C is fault.**
NO → **The MAIN PWB is fault.**

(Caution) In the FAN MODE, [ENA] is automatically recovered when the main power is turned OFF → ON.

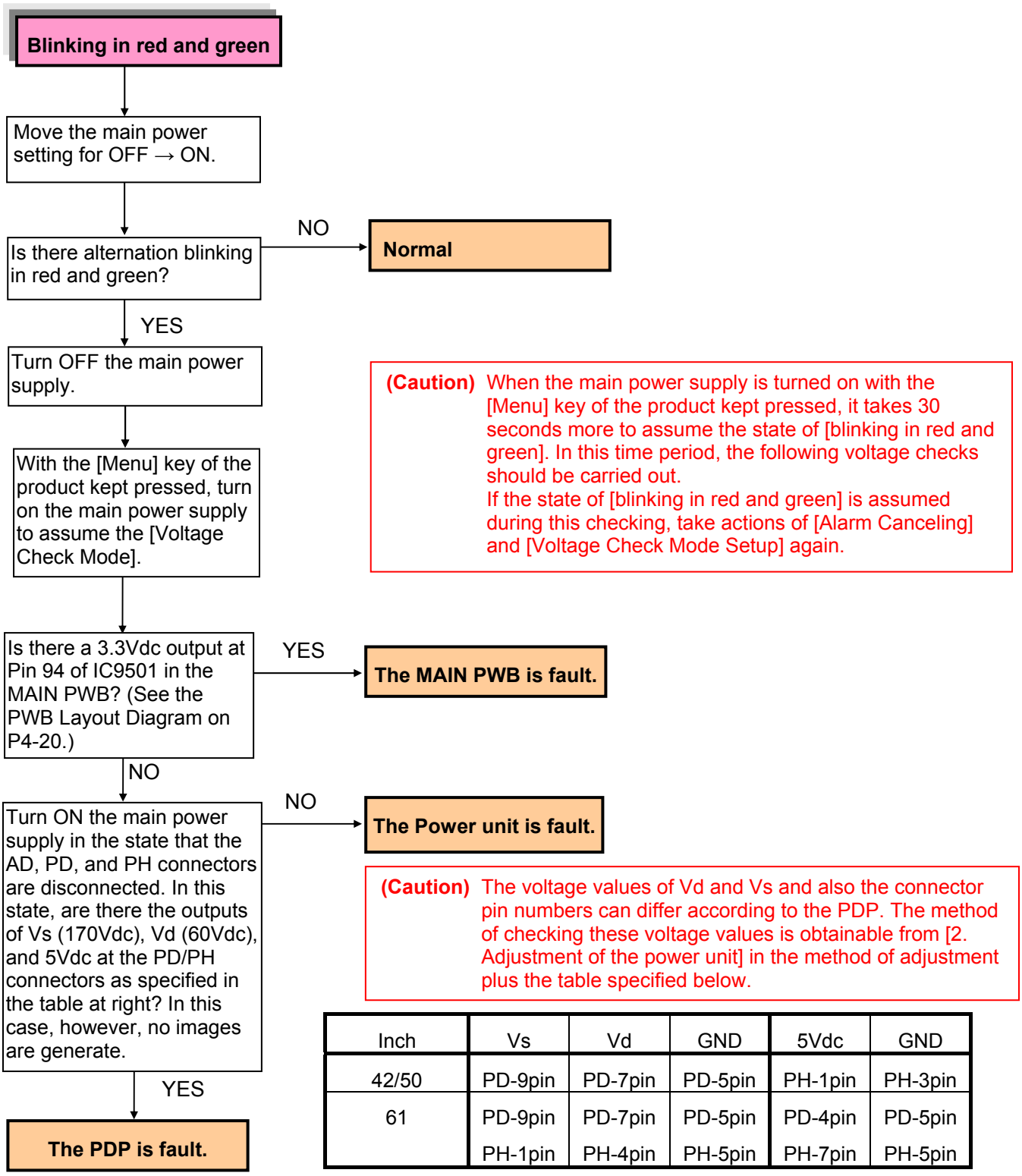
(3) Blinking in red (Alarm of temperature error)

Since the internal temperature is too high in the product, the temperature protector has been actuated. In such a case, the following actions should be taken immediately:

1. Turn off the main power supply and pull out the power cord from the wall outlet.
2. Wait for about 60 minutes until the temperature in the main unit lowers.
3. Check whether the heat discharge port is covered with dust or the like. If yes, remove the clogging substance.
4. If the unit is used where the ambient temperature is high, it should be moved to an adequate place (air temperature ranging from 5°C to 35°C).

(4) Alternation blinking in red and green (Alarm of PDP error)

(Caution) How to reset the alarming condition
Pressing the [Input Select] key of the product, turn on the main power supply of the main unit. In this state, keep pressing the [Input Select] key for more than 2 seconds until alarming is canceled. Make confirmation by the method specified below.



(Caution) When the main power supply is turned on with the [Menu] key of the product kept pressed, it takes 30 seconds more to assume the state of [blinking in red and green]. In this time period, the following voltage checks should be carried out.
If the state of [blinking in red and green] is assumed during this checking, take actions of [Alarm Canceling] and [Voltage Check Mode Setup] again.

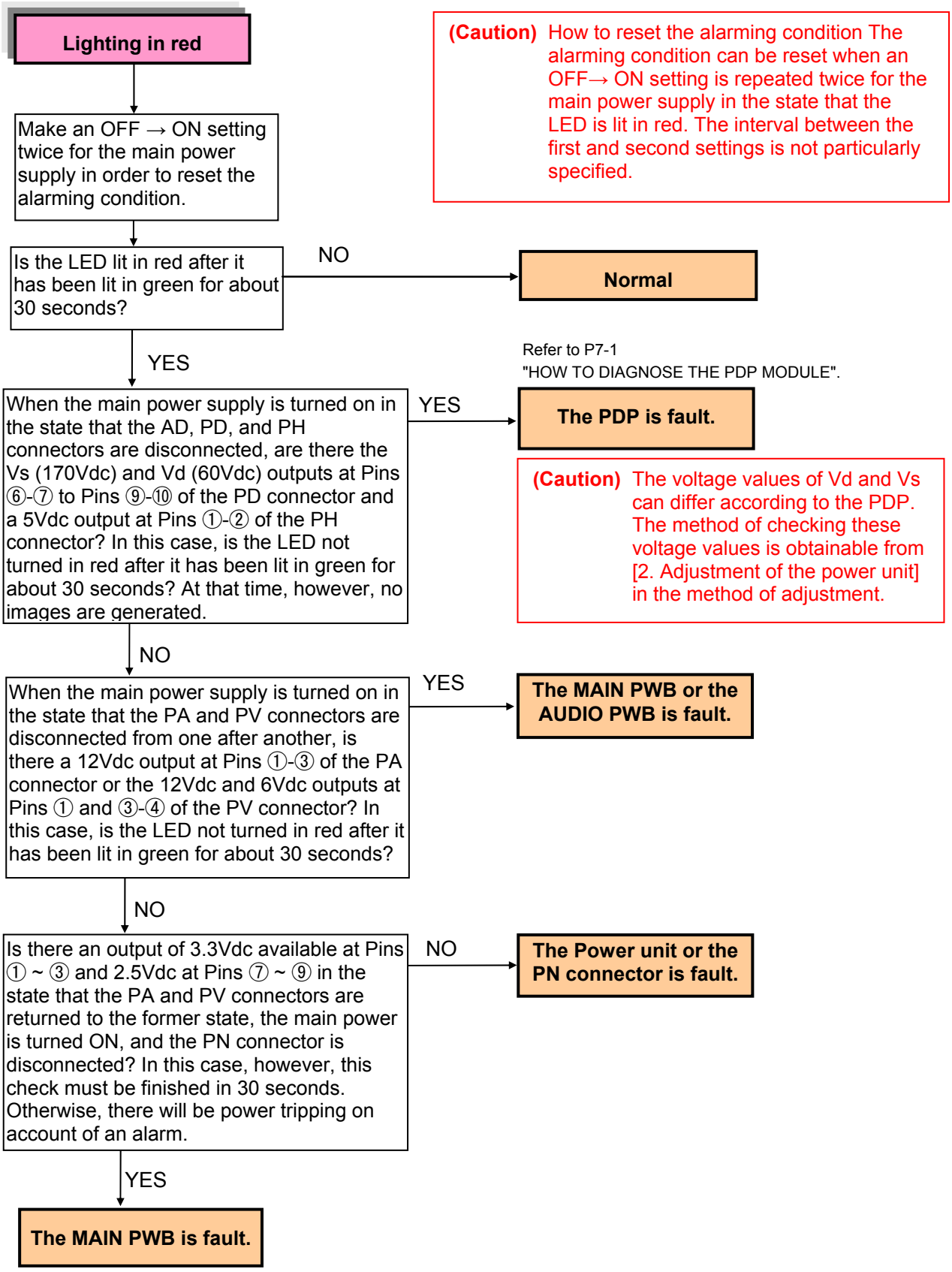
(Caution) The voltage values of Vd and Vs and also the connector pin numbers can differ according to the PDP. The method of checking these voltage values is obtainable from [2. Adjustment of the power unit] in the method of adjustment plus the table specified below.

Inch	Vs	Vd	GND	5Vdc	GND
42/50	PD-9pin	PD-7pin	PD-5pin	PH-1pin	PH-3pin
61	PD-9pin PH-1pin	PD-7pin PH-4pin	PD-5pin PH-5pin	PD-4pin PH-7pin	PD-5pin PH-5pin

(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)

(5) Lighting in green, and then in red (Alarm of power voltage error)

Unlike [lighting in red] in the STANDBY mode, [lighting in green] continues for about 30 seconds without any output of images and audio signals. Since then, the mode turns into [lighting in red].



2. Image errors

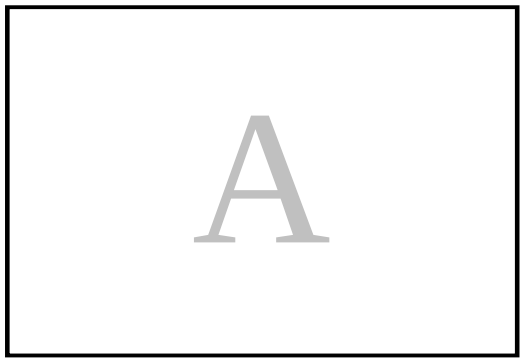
(Caution) Typical abnormal images are shown below. All errors do not always fall on these error samples.

(1) Image burn and deterioration in brightness

Residual images are seen without signal entry.

↓

This is not a fault.



No signal

Deterioration in brightness

↓

This is not a fault.

All-whitesignal

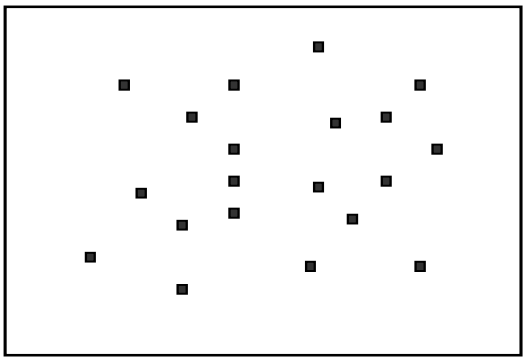
(2) Failure in writing

Failure in writing

↓

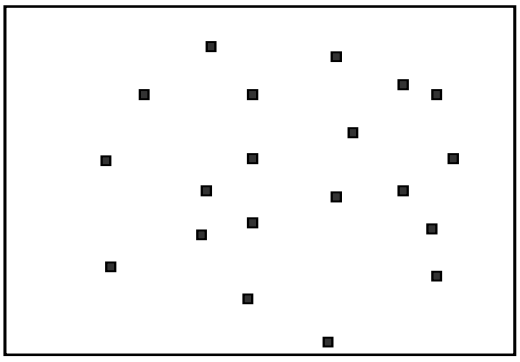
The PDP is fault.

(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)



All-whitesignal

Dot errors change with no continuity.



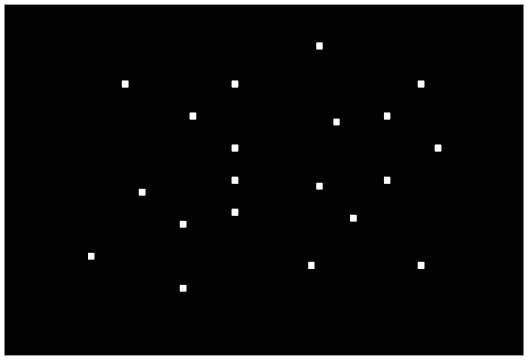
All-whitesignal

(4) Wrong lighting

Wrong lighting

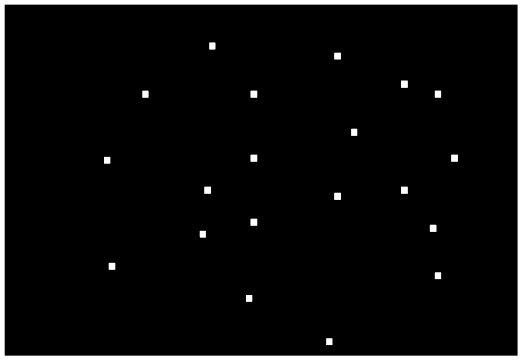
The PDP is fault.

(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)



All-black signal

Dot errors change with no continuity.



All-black signal

(5) Dark images [Other than the deterioration in brightness as per (1) above]

The images are dark even with an all-white input

The PDP is fault.

(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)

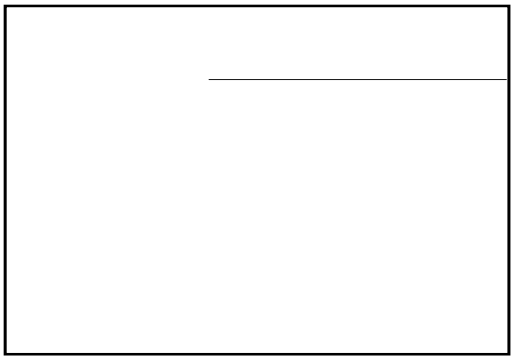
All-white signal

(6) Defect in horizontal lines

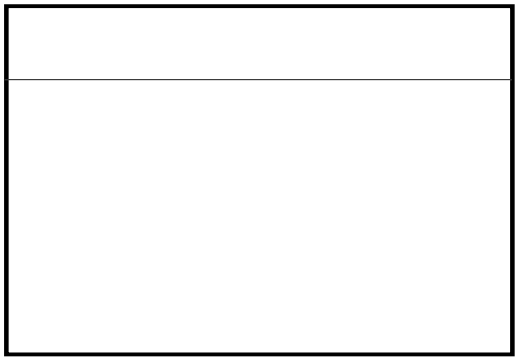
Line defect

The PDP is fault.

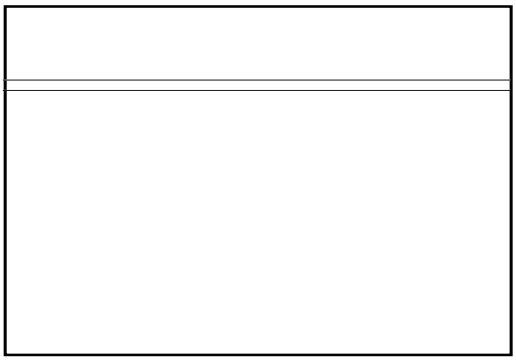
(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)



All-white signal



All-white signal



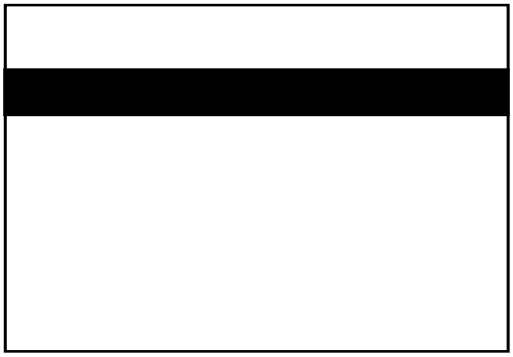
All-white signal

Defect in the block unit

↓

The PDP is fault.

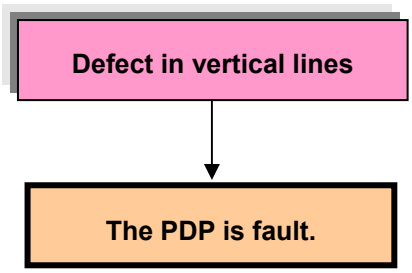
(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)



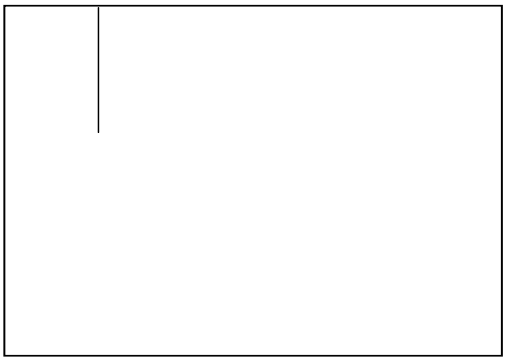
All-white signal

All-white signal

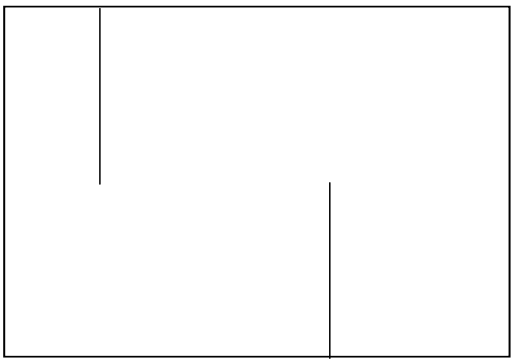
(7) Defect in vertical lines



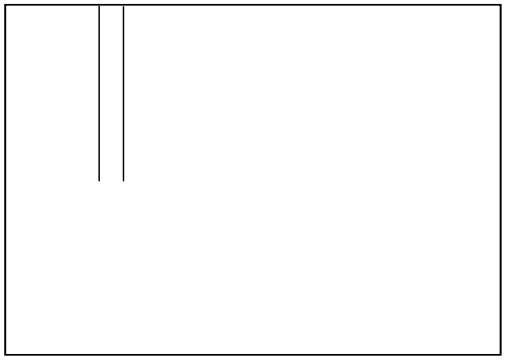
(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)



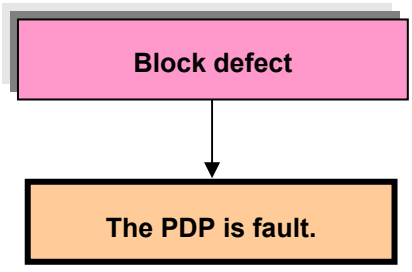
All-white signal



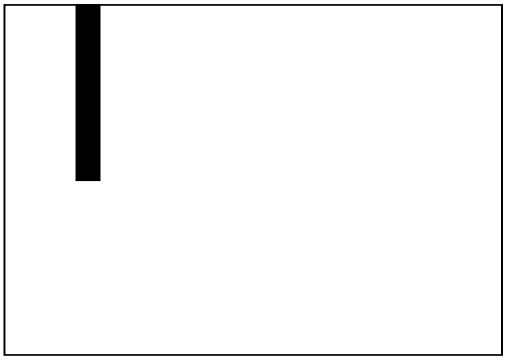
All-white signal



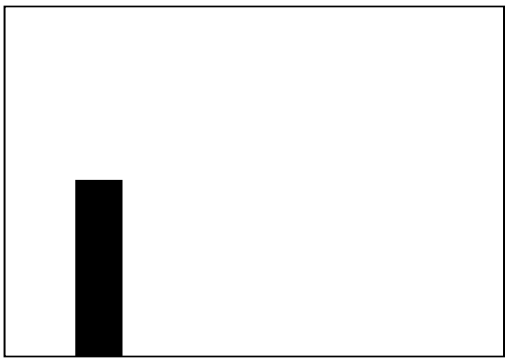
All-white signal



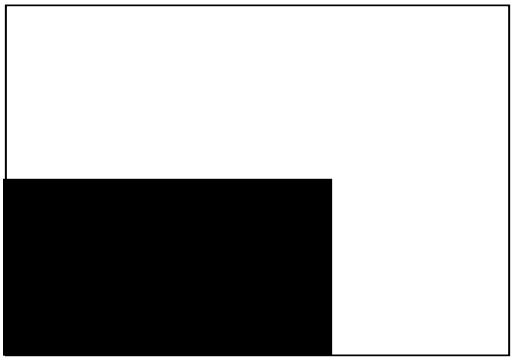
(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)



All-white signal

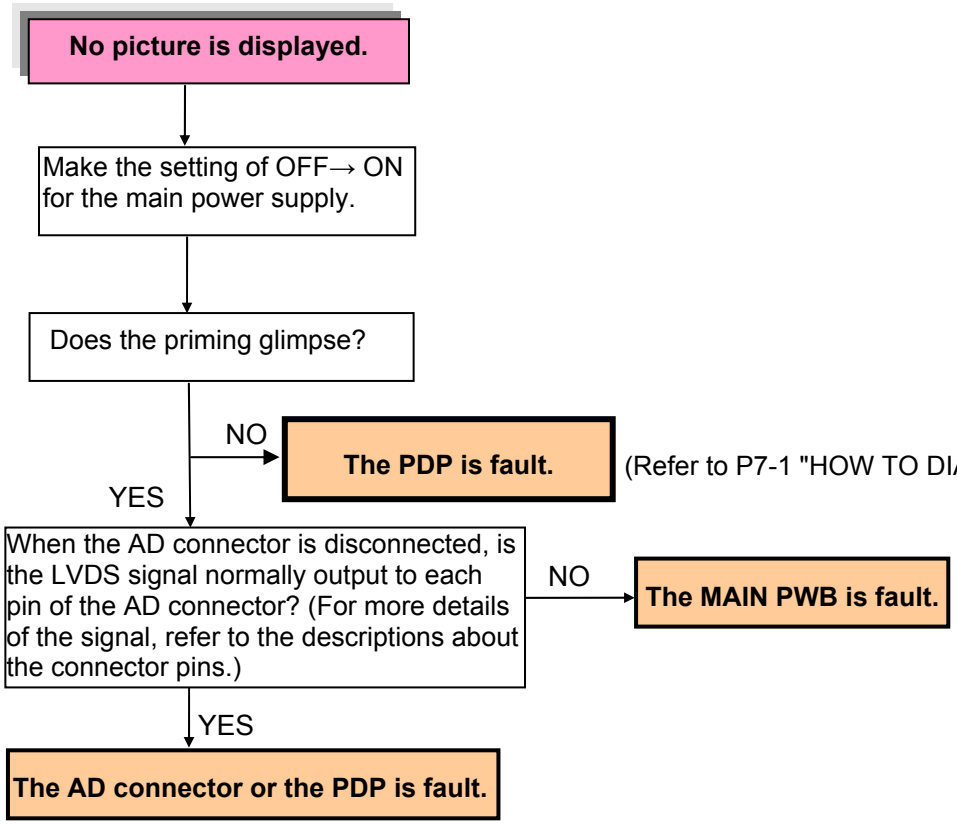


All-white signal



All-white signal

(8) No pictures [**(Caution)** The voltage outputs of Vs = 170V and Vd = 64V, 5Vdc are always generated, but the LED is not flashing or lighting for alarming. However, the voltage values can differ according to the MODULE.]



3. Audio errors

(Caution) In regard to the method of audio input setting, refer to the specifications and the instruction manual to confirm that all the setting is free from errors. Since then, troubleshooting can be carried out. It must be noted that the protector functions and no audio output is available if the opposing electrodes of the speaker output or the speaker output and the ground (GND) are short-circuited. In such a case, turn off the main power supply and make the connections correctly. The protector is reset when the main power supply is turned on after that.

Audio errors

In the state that the speaker cable is disconnected, is the audio signal output available at the speaker terminal?

YES → **The speaker or the speaker cable is fault.**

NO

Is the voltage output specified below available at each pin of the PA connector in the AUDIO PWB?

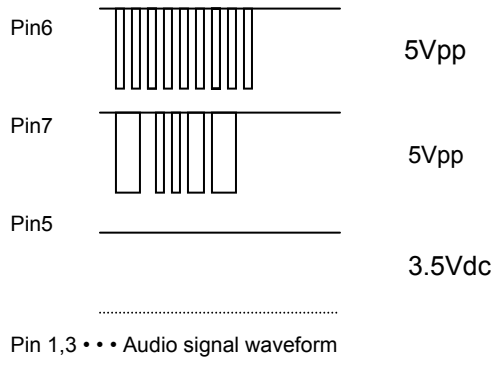
NO → **The power unit or the PA connector is fault.**

Pin_NO	Name	Voltage
1	S+12	12Vdc
2	S+12	12Vdc
3	S+12	12Vdc
4	GND	GND
5	GND	GND
6	GND	GND

YES

Is the waveform specified below output to the AU connector of the AUDIO PWB?

NO → **The MAIN PWB or the AU connector is fault.**



YES

The AUDIO PWB is fault.

4. Remote control not effective

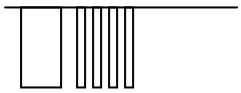
(1) The wired remote control is not effective.

① When a single item is used

(Caution) The wired remote control is not effective if the setting of [PLE LINK], or [Repeat TIMER] is ON, or if the setting of [ID NUMBER] has been made. Therefore, such a setting should be turned off, without fail. Since then, troubleshooting can be carried out.

The wired remote control is not effective.

Is there a signal output specified below at Pin 7 of the RS connector?

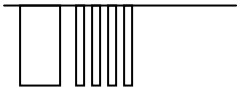


3.3Vpp

YES → **The RS connector or the MAIN PWB is fault.**

NO

Is there a signal output specified below at Pin 3 of the M2003? (Refer to the PWB layout diagram on Page P4-21.)



5Vpp

NO → **Is there a 3.3Vdc output at Pin 2 of the M2003? (Refer to the PWB layout diagram on Page P4-21.)**

YES → **The remote control or the remote control cable is fault.**

NO → **The RS232C PWB is fault.**

YES

When the RS connector is disconnected, is there a signal output specified below at the RS connector of the MAIN PWB?

Pin No.	Pin name	Voltage
1	M+5V	5Vdc
5	M+3.3V	3.3Vdc

NO → **The RS connector or the MAIN PWB is fault.**

YES

The 232C PWB is fault.

② When a daisy chain (including the video wall) is used

The wired remote control is not effective.

Are the 0Vdc and 5Vdc outputs respectively available at Pins 9 and 10 of the RS connector in the standard product of 232C PWB?

YES → Is there a clock signal output at Pin 3 of the M2004? (Refer to the PWB layout diagram on Page P8-19.)

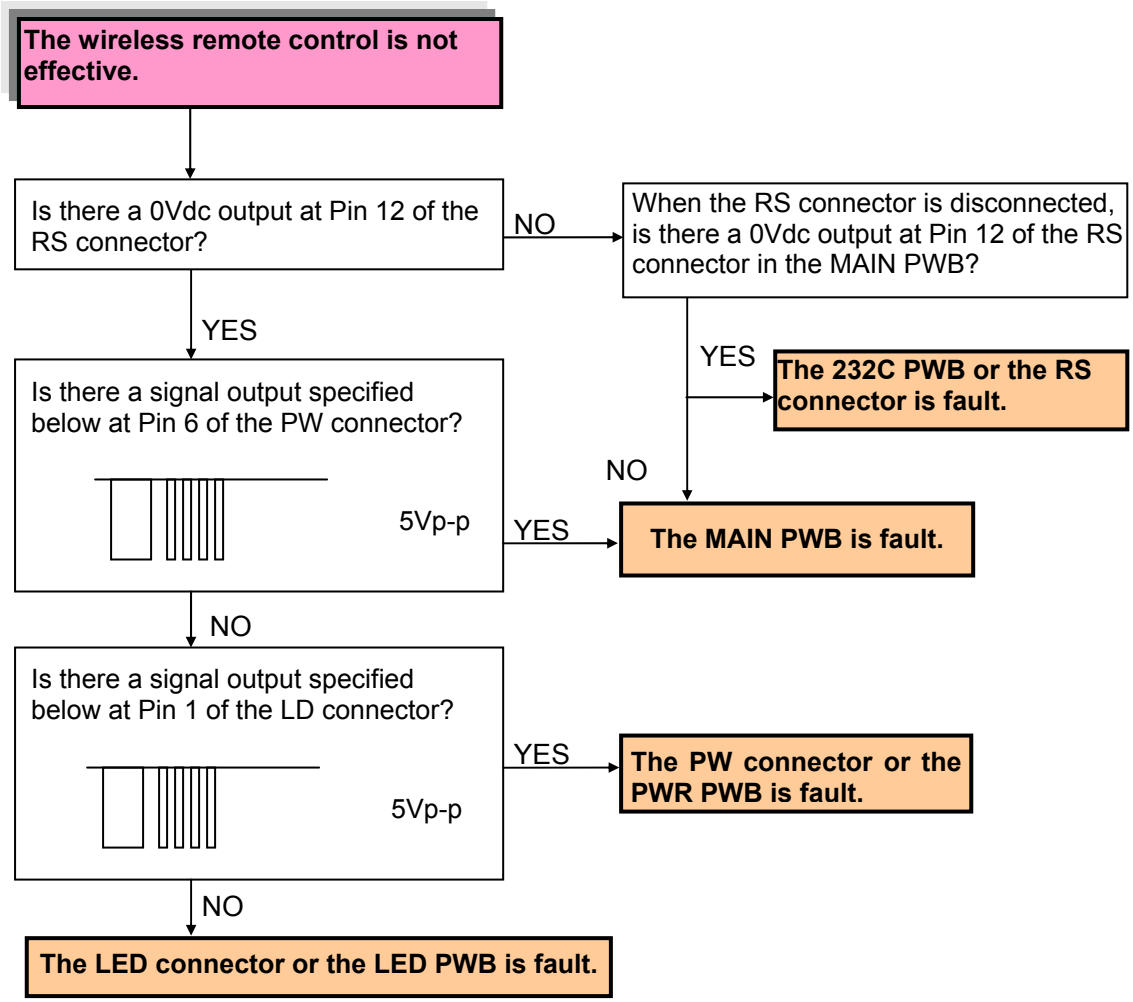
YES → **Check the products of second and thereafter according to "1 When a single item is used."**

NO → **The 232C PWB is fault.**

NO → **The MAIN PWB is fault.**

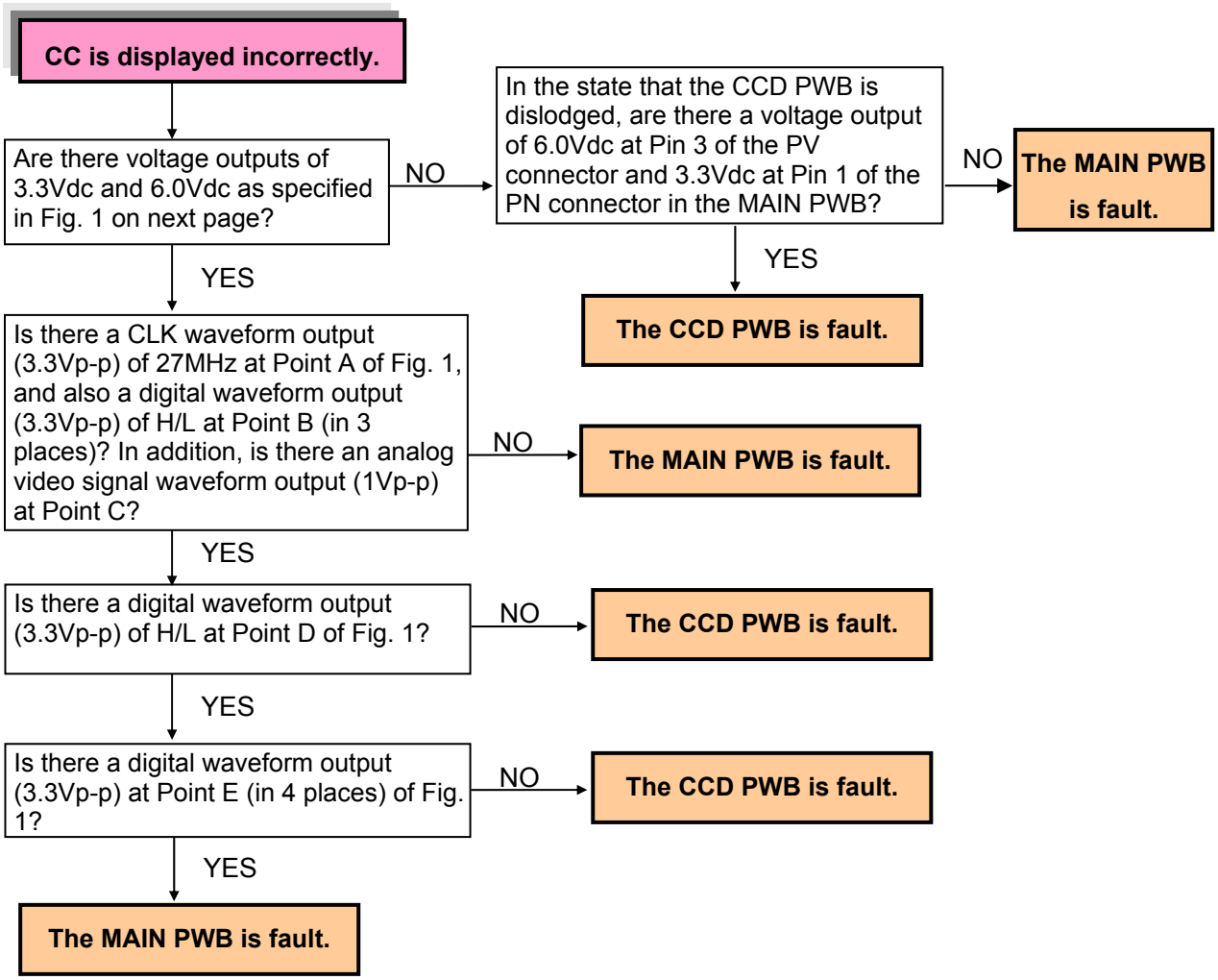
(2) The wireless remote control is not effective.

(Caution) Since the detection of “wired” or “wireless” is conducted for the remote control through the remote terminal, it is necessary to pull out the remote control cable from the remote terminal, without fail. Troubleshooting should be carried out after confirming that “IR REMOTE” is set at ON and that “ID NUMBER” is at ALL according to the user’s menu.



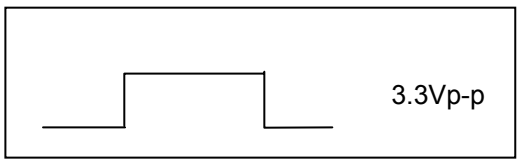
5. The closed caption (CC) is displayed incorrectly. (PX-*****A only)

(Caution) Only the models for North America. The PCB-5044 (CCD PWB) is not installed in other models. Checks are needed by applying a signal output to the video input circuit, which is equivalent to the closed caption.

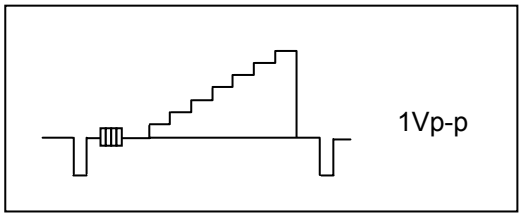


Waveform at Point B/D/E

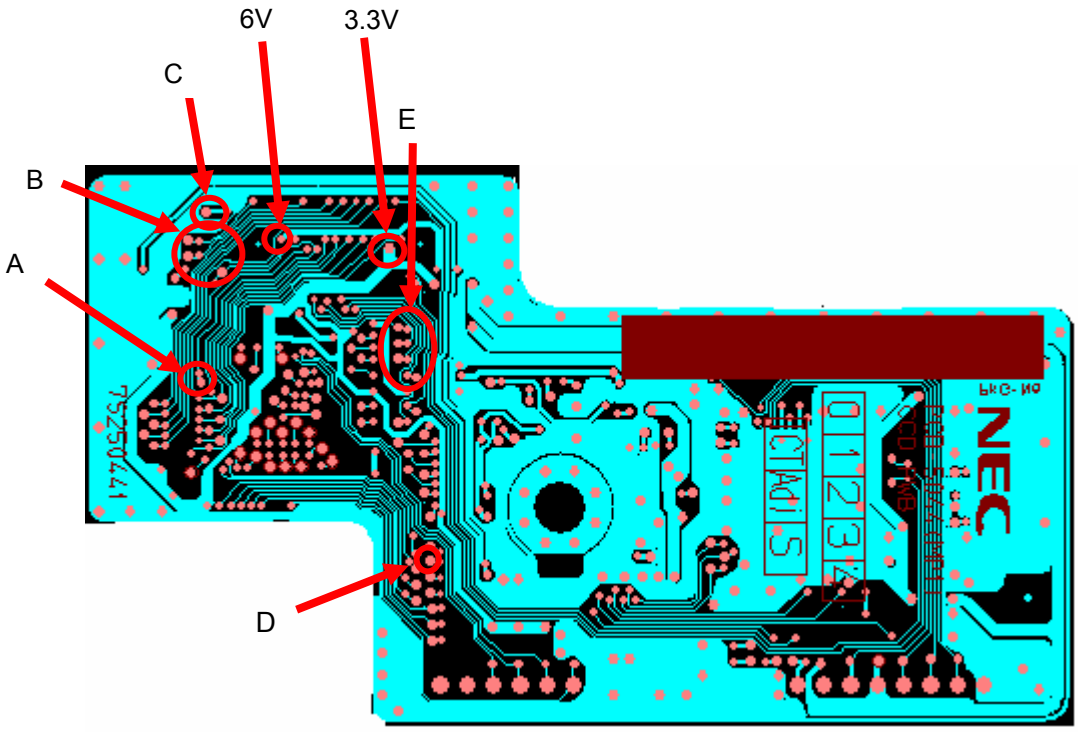
Check point: Check voltage and see whether a change in H/L is present.



Waveform at Point C



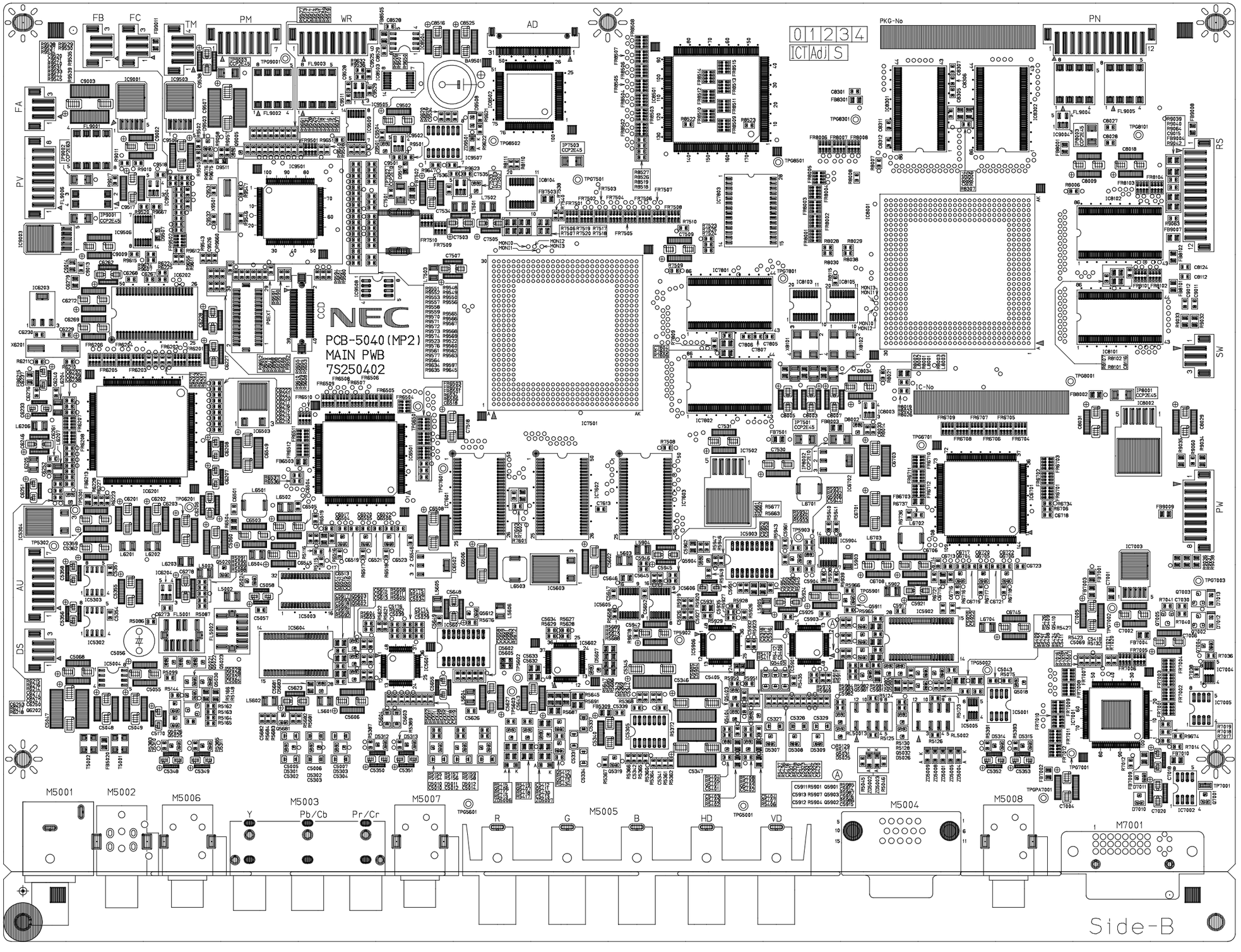
NTSC video signal (with gray scale input)



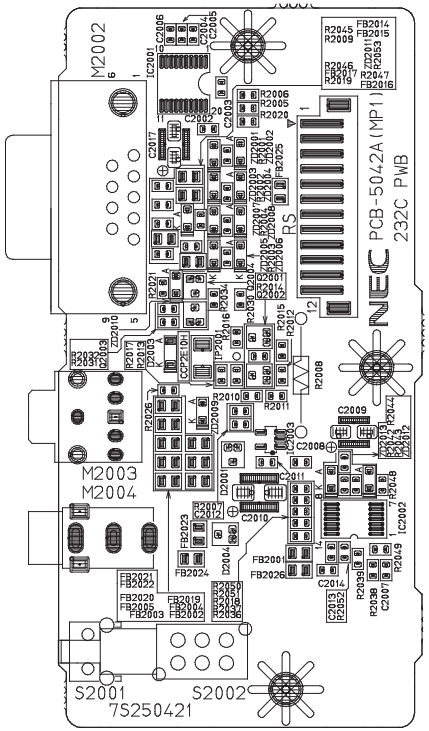
<Fig. 1 CCD PWB Pattern Diagram>

Check point

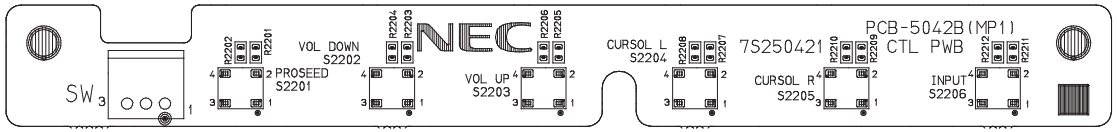
MAIN PWB



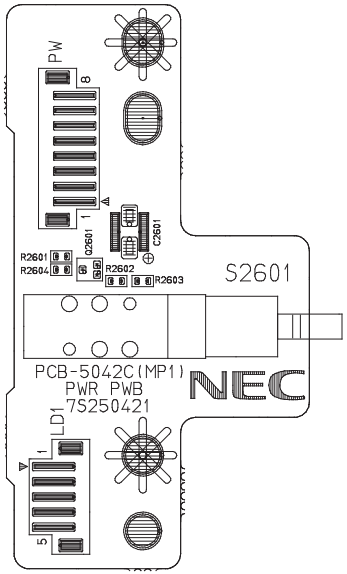
232C PWB


M2002
PCB-5042A(MP1)
232C PWB
M2003
M2004
S2001
S2002
7S250421

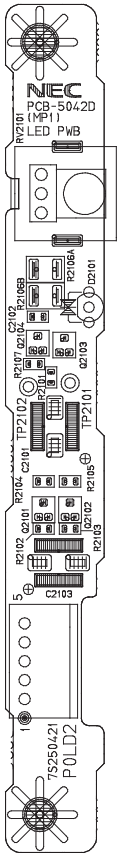
CLT PWB


SW3
R2202
R2201
PROSEED
S2201
VOL DOWN
S2202
R2204
R2203
NEC
VOL UP
S2203
R2206
R2205
CURSOL L
S2204
R2208
R2207
7S250421
PCB-5042B(MP1)
CTL PWB
R2210
R2209
CURSOL R
S2205
INPUT
S2206
R2212
R2211

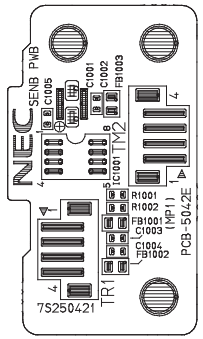
PWR PWB


PW
8
1
C2601
D2601
R2601
R2604
R2602
R2603
S2601
PCB-5042C(MP1)
PWR PWB
7S250421
NEC
LD1
1
5

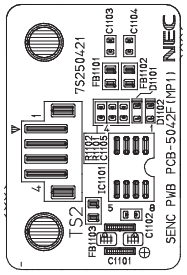
LED PWB


NEC
PCB-5042D
(MP1)
LED PWB
RV2101
D2101
R2106A
R2106B
C2102
Q2104
Q2103
R2107
R2101
TP2102
TP2101
C2101
R2105
R2104
Q2101
Q2102
R2102
R2103
C2103
5
1
752504 21
P0LD2

SENB PWB

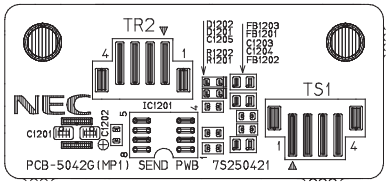

NEC
SENB PWB
C1005
C1001
C1002
FB1003
IC1001
TM2
R1001
R1002
FB1001
(MP1)
C1003
C1004
FB1002
TR1
PCB-5042E
7S250421

SENC PWB

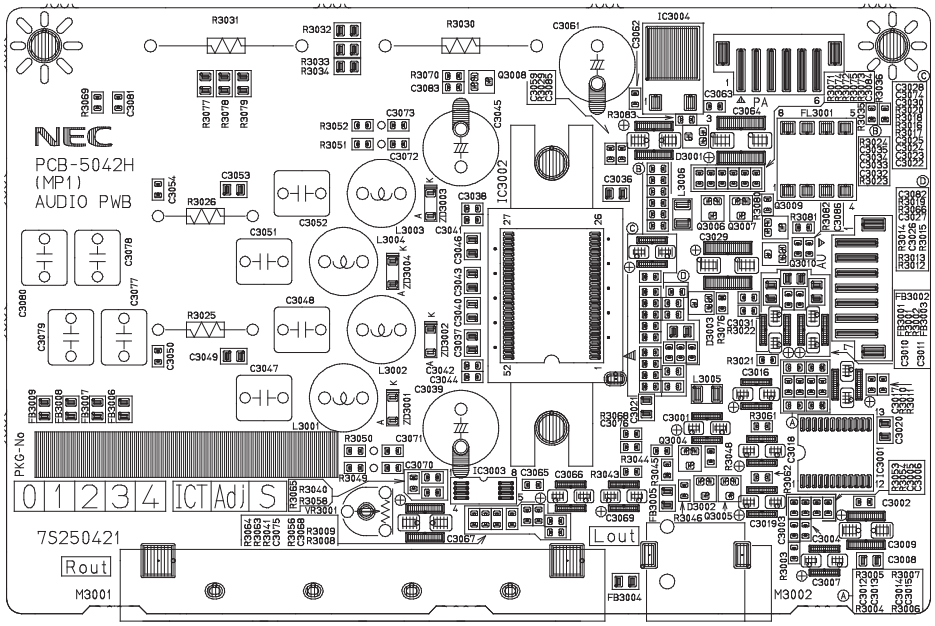


TS2
FB1101
C1101
C1102
C1103
C1104
FB1102
D1101
D1102
R1102
R1101
C1105
IC1101
FB1103
SENC PWB PCB-5042F(MP1)
NEC

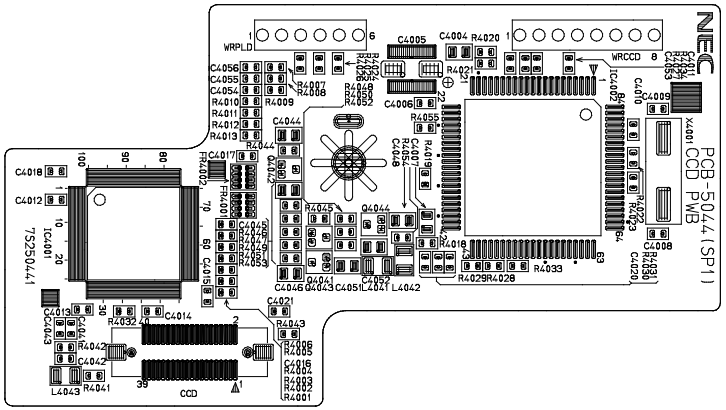
SEND PWB



AUDIO PWB


NEC
PCB-5042H
(MP1)
AUDIO PWB
PKG-No
0 1 2 3 4
ICT Adj S
7S250421
Rout
Lout
M3001
M3002
IC3002
IC3003
IC3004
FL3001
PA

CCD PWB (PX-*****A only)



METHOD OF ADJUSTMENTS

■Adjusting conditions

Adjustments should be carried out in the procedures of A to C specified below. However, any adjustments other than the items A to C below are not required.

A. When the "PDP module (PDP-NP61C2MF01)" is replaced, adjustments should conform to the adjusting items of [1 and 2] specified below.

B. When the "POWER UNIT" is replaced, adjustments should conform to the adjusting item of [2] specified below.

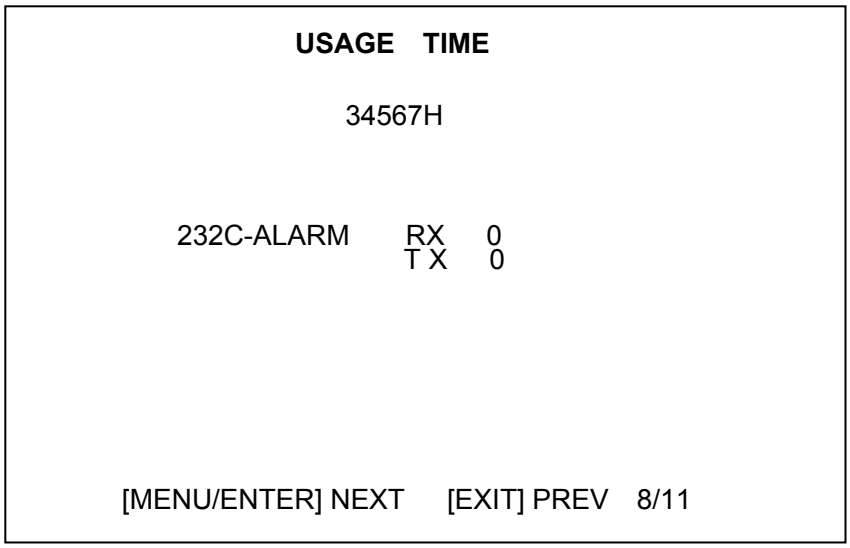
C. When the "MAIN PWB" is replaced, adjustments should conform to the adjusting item of [3] specified below.

■Adjusting items

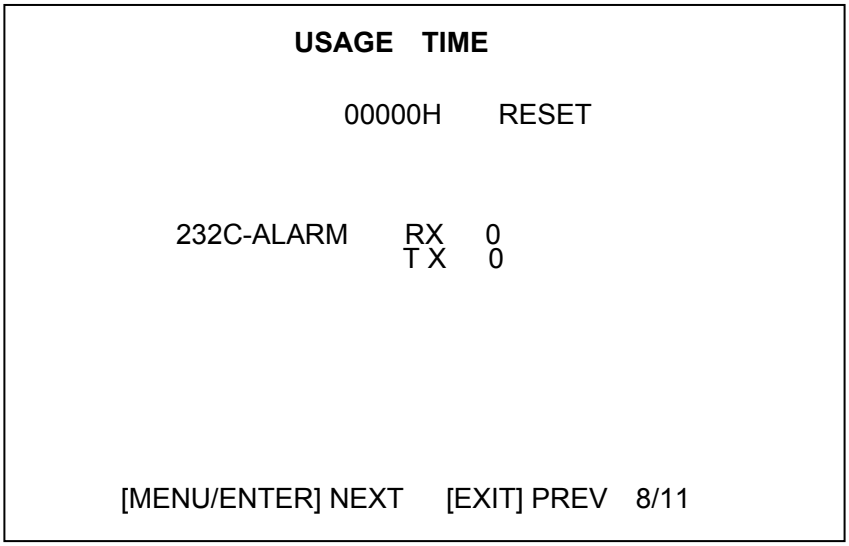
1. Clearing of the usage time (Using the remote control)

(1) Press the keys in the order of [POWER ON] → [POWER ON] → [EXIT] → [DISPLAY] in order to enter the factory adjustment menu.

(2) Press the [MENU/ENTER] key to select the [USAGE TIME] menu (8/11). Then, the integrated time [34567 (hours)] (example) accumulated till the present time is displayed when the main power supply is turned on (except for the standby mode).



(3) When the keys are pressed in the order of [MUTE] → POSITION/CONTROL [▲] → POSITION/CONTROL [▼] → [OFF TIMER], the display is cleared to [00000H]. At that time, the characters of [RESET] are displayed for about 5 seconds on the right side of time display.



2. Adjustment of the power unit (Using a screwdriver for general-purpose adjustments)

2-1. Adjustment of the Vs voltage

(1) Enter a color bar input by means of either video signal of VIDEO input, or DVD/HD input, or RGB input, and turn on the power switch of the main unit.

(2) Turn the volume control (RV6) in the power unit and make adjustments until the voltages of CH2 and CH1 (D, GND) of the power unit attain the voltage values specified for the PDP (Vs value of the voltage regulation indicator label on below the figure) ±1V.

2-2. Adjustment of the Vd voltage

(1) Enter a color bar input by means of either video signal of VIDEO input, or DVD/HD input, or RGB input, and turn on the power switch of the main unit.

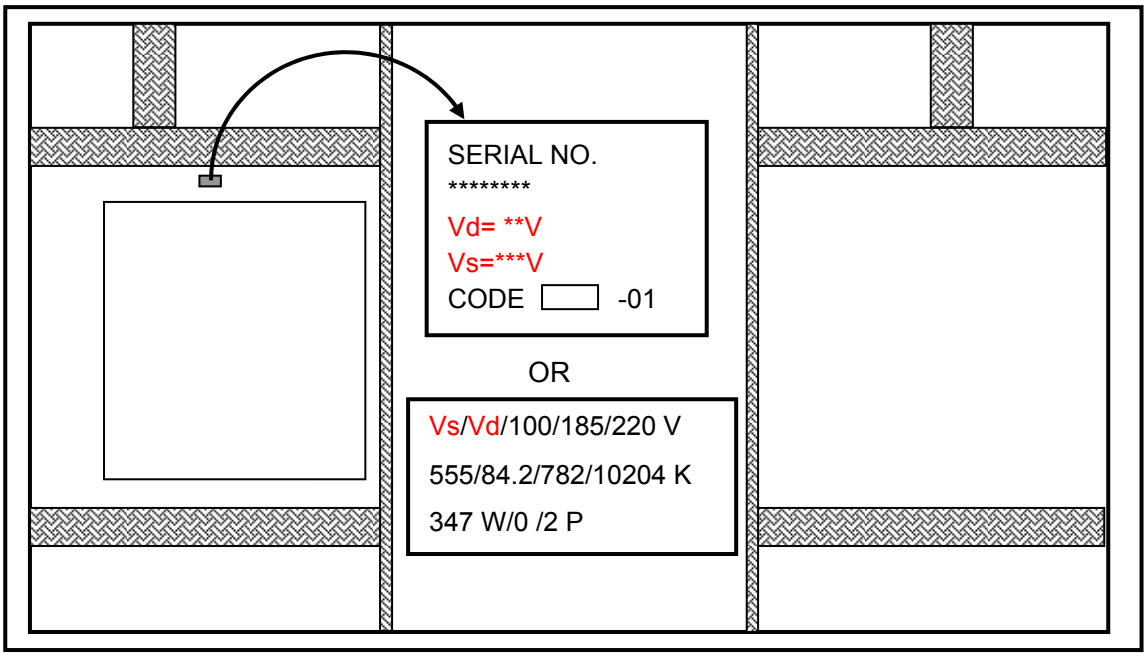
(2) Confirm that the voltages of CH4 and CH1 (D, GND) of the power unit are maintained at the voltage values specified for the PDP (Vd value of the voltage regulation indicator label on below the figure) ±1V.

Otherwise, turn the volume control (RV5) until the voltage attains the voltage values specified for the PDP (Vd value of the voltage regulation indicator label on below the figure) ±1V.

2-3. Adjustment of the +5V voltage

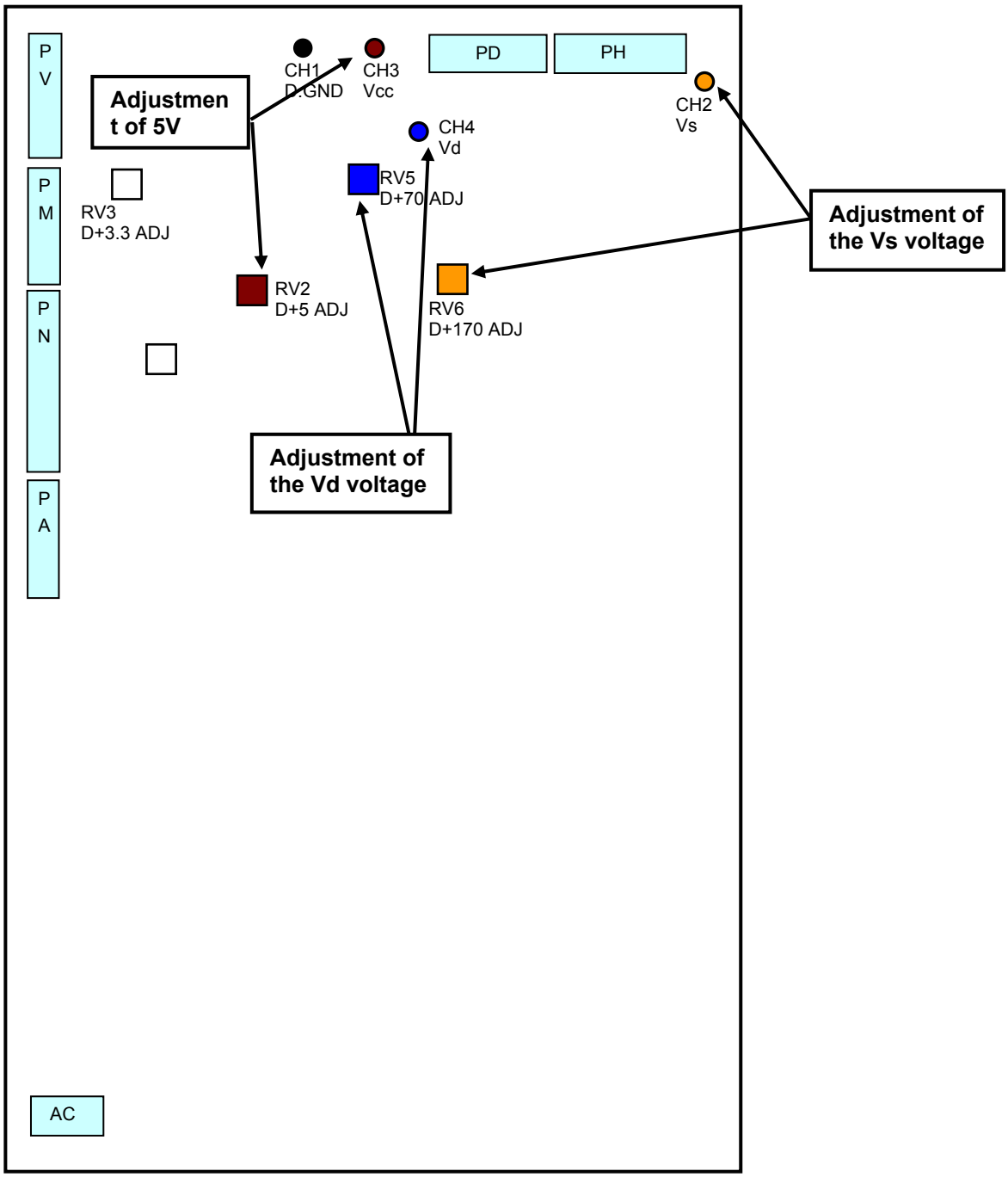
(1) Display a color bar by means of either video signal of VIDEO input, or DVD/HD input, or RGB input.

(2) Confirm that the voltages of CH3 and CH1 (D, GND) of the power unit are maintained at "5.15 ± 0.1V". Otherwise, turn the volume control (RV2) until the voltage attains "5.15 ± 0.1V".



(Caution) Rear-side view when the back cover is removed The label is concealed between the MAIN PWB and PDP. Check it by peeping through the space from above. The label position can be changed, without notice.

*** Top view of the power unit (Adjustment VR location)**

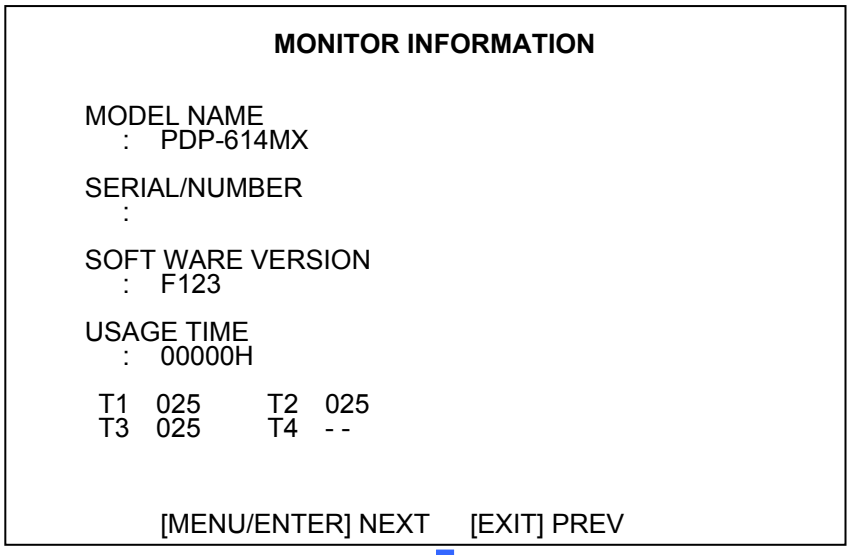


3. Adjustments after the replacement of the MAIN PWB (Using the remote control)

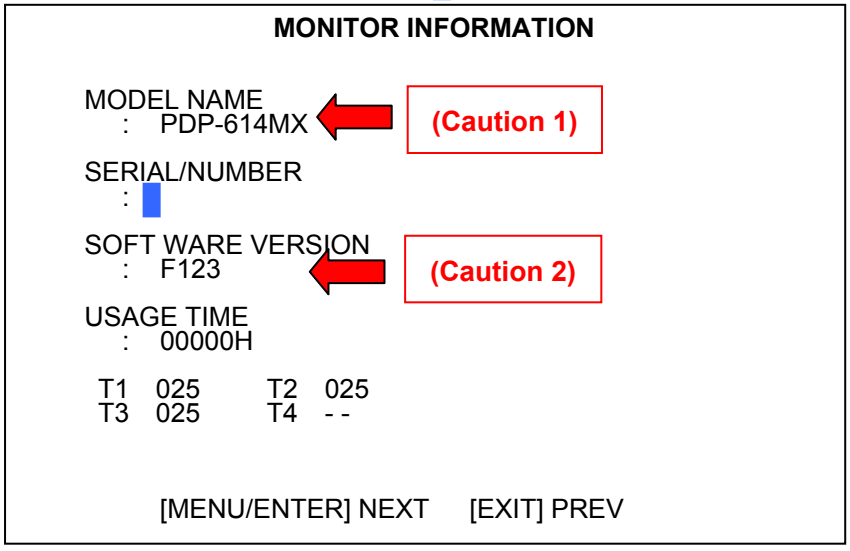
3-1. Product serial No. registration

(1) Press the keys in the order of [POWER ON] → [POWER ON] → [EXIT] → [DISPLAY] in order to enter the factory adjustment menu.

(2) Press the [MENU/ENTER] key to select the [MONITOR INFORMATION] No. menu. (Example : PDP -614MX)



(3) Press the [WIDE] key 4 times to display a cursor ▮ in the lower column of [SERIAL/NUMBER].



(Caution 1) No modification is possible here because this modification is already finished by 3-2. Factory shipment setting (initial setting).

(Caution 2) No modification is possible here because registration is already finished at the time of shipment in terms of maintenance parts.

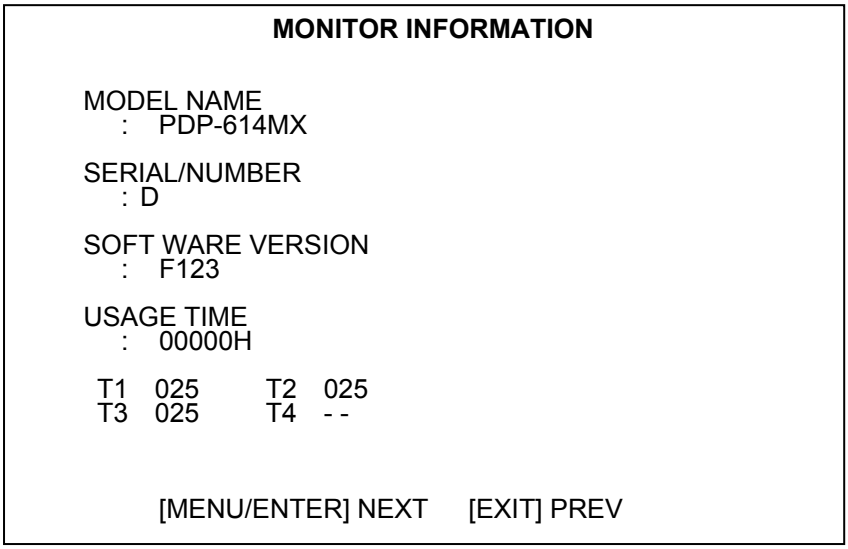
(4) Moving the POSITION/CONTROL keys of [▲] and [▼], select the numerals and characters of the serial number that is listed in the serial label located on the rear surface of the product. Register the serial number. (Blank → 0 ~ 9 → A ~ Z)

(5) Moving the POSITION/CONTROL keys of [◀] and [▶], select the next digit by means of a cursor.

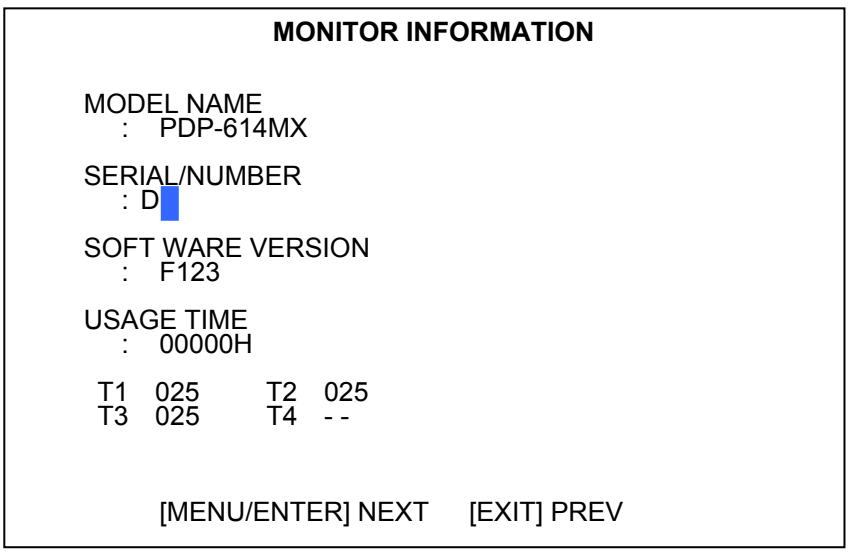
(6) Repeat the processes of (4) and (5) above and register the serial number completely.

(Example) When entering a serial number of [DISS00001XX]

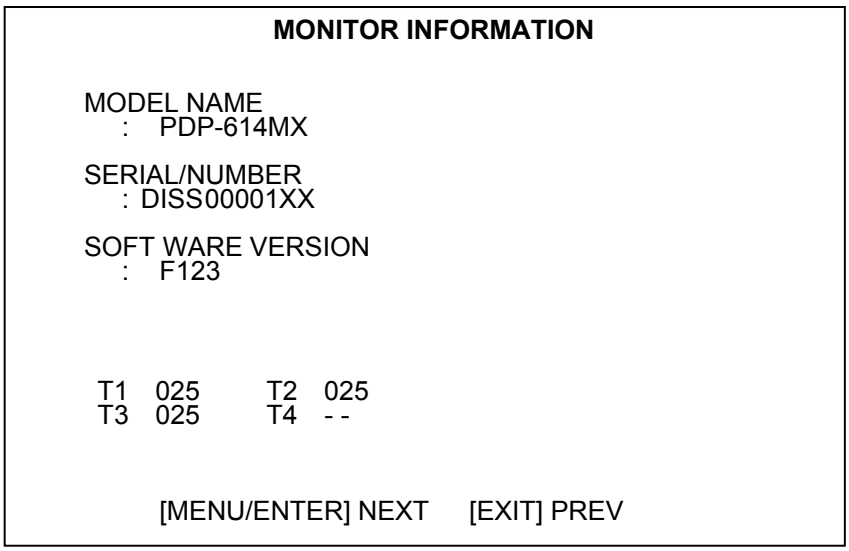
① Move the POSITION/CONTROL keys of [▲] and [▼] to select [2].



② Move the POSITION/CONTROL keys of [◀] and [▶] to select the next digit.



③ Repeat the procedures of ① and ② above, and enter all inputs of [DISS00001XX] from the left side.



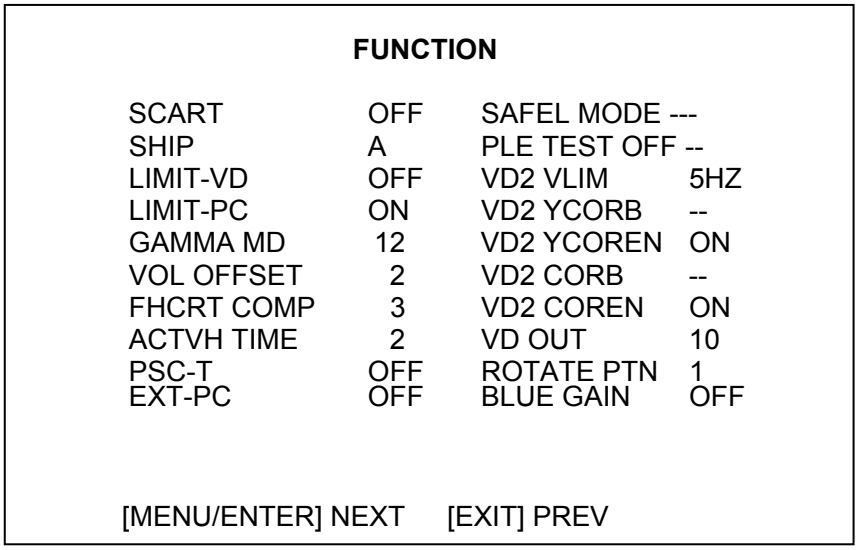
(7) Following the above, setting must be carried out without fail according to "3-2. Factory shipment setting (Initial setting)"

3-2.Factory shipment setting (Initial setting)

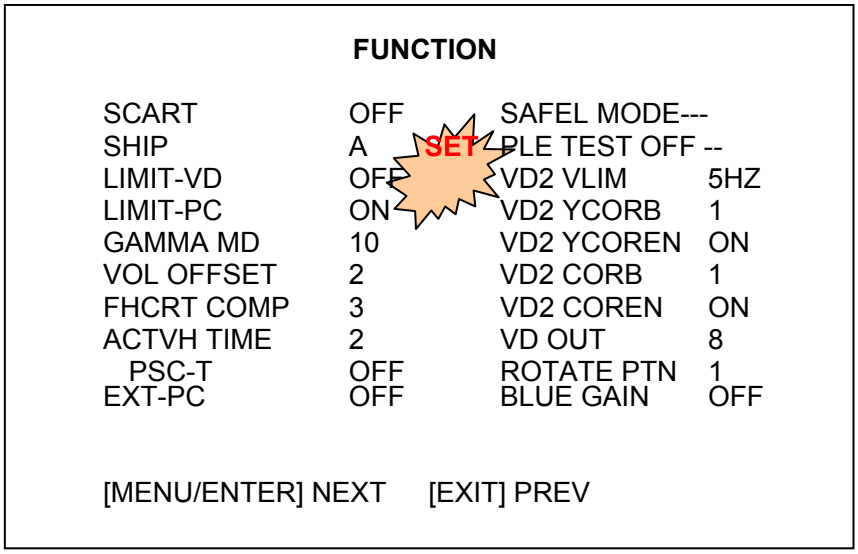
(1) Press the [MENU/ENTER] ke to select the [FUNCTION] menu.

(2) Move the POSITION/CONTROL keys of [▲] and [▼] to the item of [SHIP]. Then, move the POSITION/CONTROL keys of [◀] and [▶] to select [DESTINATION ALPHABETS] shown below. (The asterisks * shown below denote the numerals or the characters.)

J	: PDP-615PRO	: Specifications for use in Japan
A	: PDP-614MX / PRO-1410HD	: Specifications for North America
G	: PDP-615EX	: Specifications for European countries



(3) Press the keys in the order of [MUTE] → POSITION/CONTROL [▲] → POSITION/CONTROL [▼] → [OFF TIMER] to make "Factory shipment setting". When "Factory shipment setting" is executed, the red characters of [SET] is shown for about 5 seconds on the right side of the [DESTINATION ALPHABETS]. The setting is finished when these red characters of [SET] go out. In regard to the factory shipment setting values, refer to the descriptions given below.



(4) Press the keys of the remote control in the order of [POWER ON] → [POWER ON] → [EXIT] → [DISPLAY] in order to withdraw from the Factory shipment setting.

[Factory shipment setting values]

1. Initial setting values for the user menu

MENU	A,AW,G,GW,W,WW	J,JW
POWER ON/OFF	ON	ON
VOLUME	10step	10step
INPUT MODE	VIDEO1	VIDEO1
WIDE MODE	STADIUM	STADIUM
AUTO PICTURE	OFF (RGB1~3)	OFF (RGB1~3)
HD SELECT	1080B *	1080B
LANGUAGE	ENGLISH	JAPANEASE
COLOR SYSTEM	AUTO	AUTO
All items intended to recover the initial values through the selection of [All Reset] in the user menu	Initial values	Initial values

* 1080I for *PX-***R**

2. Field menu initial setup values (applicable in common to all models)

MENU		A	G	W	J	AW,GW, WW,JW
SERVICE	SHIP	A	G	W	J	AW,GW, WW,JW
	PSC-LIMIT	OFF	OFF	OFF	OFF	OFF
	LIMIT-PC	ON	ON	ON	ON	ON
	U-SCAN	OFF	OFF	OFF	OFF	OFF
	V-FREQ OT	AUTO	60Hz	60Hz	AUTO	AUTO
	V-FREQ VD	AUTO	60Hz	60Hz	AUTO	AUTO
	SYNCLEVEL1	TTL	TTL	TTL	TTL	TTL
	SYNCLEVEL2	TTL	TTL	TTL	TTL	TTL
	SUB-ORB *1	ON	ON	ON	ON	ON
	PIC FREEZE *1	ON	ON	ON	ON	ON
MONITOR INFORMATION	LOCATION	USA	Europe	other	Japan	*2

*1:PX-50XM4/50XR4,PX-61XM3/61XR3 Selies only.

*2:Monitor information when SHIP is for AW, GW, WW, JW setup

PX-42VM5/42VP5/42VR5 Series: 42-WVGA

PX-42XM3/42XR3 Series: 42-WXGA,

PX-50XM4/50XR4 Series: 50-WXGA,

PX-61XM3/61XR3 Series (PDP-614MX, PRO-1410HD): 61-WXGA,

3. Initial setting values for the Factory shipment setting menu The table shown below specifies only the items that can be changed in the factory adjusting mode. Therefore, any setting values of the items not specified below cannot be modified.

MENU		A,AW	G,GW	W,WW	J,JW
FUNCTION	SHIP	A or AW	G or GW	W or WW	J or JW
	LIMIT-PC	ON	ON	ON	ON
MONITOR INFORMATION	SERIAL/ NUMBER	-	-	-	-

[Materials for reference]

1. Signal generator

(1) Digital RGB

, Component signal generator

- Equivalent to the VIDEO GENERATOR LT1615 (made by LEADER)
- Equivalent to the PANEL LINK ADAPTER LT9217 (made by LEADER)
- Equivalent to the VIDEO ENCODER LT1606 (made by LEADER)

(2) NTSC signal generator

- Equivalent to the NTSC PATTERN GENERATER LCG-403YC (made by LEADER)

(3) PAL signal generator

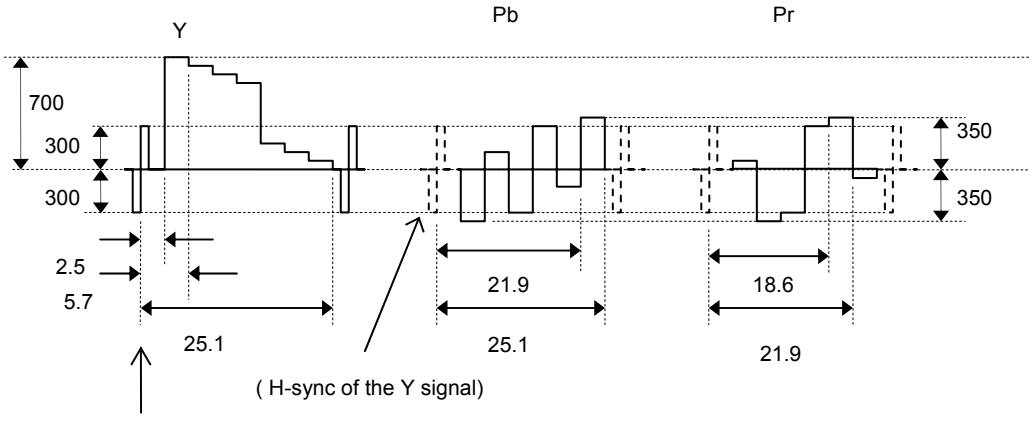
- Equivalent to the COLOR BAR PATTERN GENERATOR PM5518 (made by PHILIPS)

2. VIDEO input

Input: Composite video input or S-terminal input

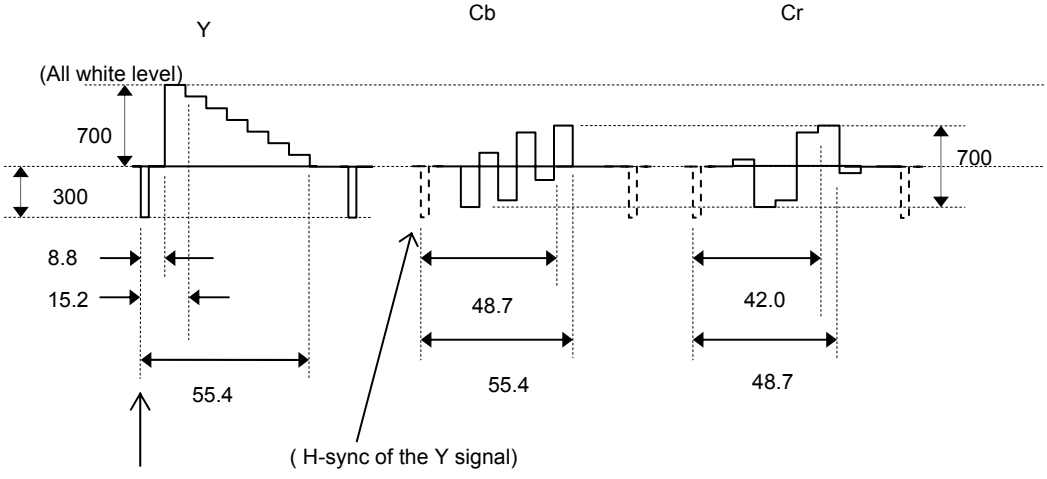
3. DVD/HD/DTV inputs

3-1. HD: Y/Pb/Pr component inputs, ternary sync signals



The time indication is based on the rise time of the ternary sync signals.

3-2. DVD: Y/Cb/Cr component inputs



The time indication is based on the lowering of the Horizontal sync signal.

4. RGB inputs

1) Horizontal sync period

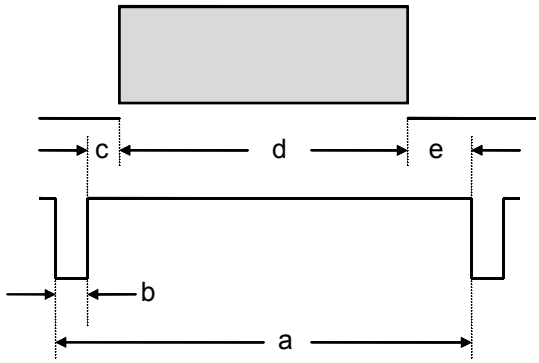
Video signal

0.7Vp-p

Sync signal

TTL level

Positive/negative polarity



2) Vertical sync period

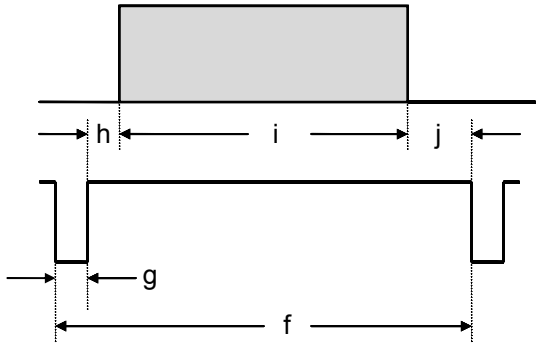
Video signal

0.7Vp-p

Sync signal

TTL level

Positive/negative polarity



For the respective inspection signals, the above “a” to “j” shall be listed on the next page and thereafter.

5. RGB/PC signal timing table

(Caution 1) For HDCP non-application products, the signals of the PC mode 1 ~ 89 can be received. For HDCP application products, the signals of the PC mode 1 ~ 98 can be received.

(Caution 2) The received PC mode number specified below is displayed in the memory column of the user menu “Information.”

PC mode	1	2	3	4	5
Signal name	VU-6010 NTSC	VU-6010 PAL/SECAM		PC98 400@70Hz	PC98 480@60Hz
Definition	640*240	768*288		640*400	640*480
Dot clock frequency (MHz)	12.214	14.752		25.175	25.175
H frequency (kHz)	15.734	15.557		31.469	31.469
V frequency (Hz)	59.94	50.39		70.086	59.94
H total (uS) [a] (dots)	63.534 776	64.262 948		31.778 800	31.778 800
H display period (uS) [d] (dots)	52.4 640	52.06 768		25.422 640	25.422 640
H front porch (uS) [c] (dots)	1.146 14	1.288 19		0.675 17	0.596 15
H sync pulse width (uS) [b] (dots)	8.76 107	8.677 128		2.542 64	3.813 96
H back porch (uS) [e] (dots)	1.228 15	2.237 33	NOT USED	3.138 79	1.946 49
V total (mS) [f] (line)	16.652 262	20.055 312		14.268 449	16.683 525
V display period (mS) [i] (line)	15.3 240	18.513 288		12.711 400	15.253 480
V front porch (mS) [h] (line)	0.191 3	0.321 5		0.413 13	0.191 6
V sync pulse width (mS) [g] (line)	1.144 18	1.093 17		0.064 2	0.064 2
V back porch (mS) [j] (line)	0.064 1	0.064 1		1.08 34	1.176 37
H sync polarity V sync polarity	Neg Neg	Neg Neg		Neg Neg	Neg Neg
Scan type	Interlaced	Interlaced		Non Interlaced	Non Interlaced
Remarks					

PC mode	6	7	8	9	10
Signal name	MAC@13"	VESA 480@72Hz	VESA 480@75Hz	VESA 480@85Hz	NOT USED
Definition	640*480	640*480	640*480	640*480	
Dot clock frequency (MHz)	30.24	31.5	31.5	36.0	
H frequency (kHz)	35	37.861	37.5	43.269	
V frequency (Hz)	66.667	72.809	75	85.008	
H total (uS)	28.571	26.413	26.667	23.111	
(dots)	864	832	840	832	
H display period (uS)	21.164	20.317	20.317	17.778	
(dots)	640	640	640	640	
H front porch (uS)	2.116	0.762	0.508	1.556	
(dots)	64	24	16	56	
H sync pulse width (uS)	2.116	1.27	2.032	1.556	
(dots)	64	40	64	56	
H back porch (uS)	3.175	4.064	3.81	2.222	
(dots)	96	128	120	80	
V total (mS)	15	13.735	13.333	11.764	
(line)	525	520	500	509	
V display period (mS)	13.714	12.678	12.8	11.093	
(line)	480	480	480	480	
V front porch (mS)	0.086	0.237	0.027	0.023	
(line)	3	9	1	1	
V sync pulse width (mS)	0.086	0.079	0.08	0.069	
(line)	3	3	3	3	
V back porch (mS)	1.114	0.739	0.427	0.578	
(line)	39	28	16	25	
H sync polarity	Sync on G	Neg	Neg	Neg	
V sync polarity	Sync on G	Neg	Neg	Neg	
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	
Remarks					

PC mode	11	12	13	14	15
Signal name	VESA 600@56Hz	VESA 600@60Hz	VESA 600@72Hz	VESA 600@75Hz	VESA 600@85Hz
Definition	800*600	800*600	800*600	800*600	800*600
Dot clock frequency (MHz)	36	40	50	49.5	56.25
H frequency (kHz)	35.156	37.879	48.077	46.875	53.674
V frequency (Hz)	56.25	60.317	72.188	75	85.061
H total (uS)	28.444	26.4	20.8	21.333	18.631
(dots)	1024	1056	1040	1056	1048
H display period (uS)	22.222	20	16	16.162	14.222
(dots)	800	800	800	800	800
H front porch (uS)	0.667	1	1.12	0.323	0.569
(dots)	24	40	56	16	32
H sync pulse width (uS)	2	3.2	2.4	1.616	1.138
(dots)	72	128	120	80	64
H back porch (uS)	3.556	2.2	1.28	3.232	2.702
(dots)	128	88	64	160	152
V total (mS)	17.778	16.579	13.853	13.333	11.756
(line)	625	628	666	625	631
V display period (mS)	17.067	15.84	12.48	12.8	11.179
(line)	600	600	600	600	600
V front porch (mS)	0.028	0.026	0.77	0.021	0.019
(line)	1	1	37	1	1
V sync pulse width (mS)	0.057	0.106	0.125	0.064	0.056
(line)	2	4	6	3	3
V back porch (mS)	0.626	0.607	0.478	0.448	0.503
(line)	22	23	23	21	27
H sync polarity	Pos.	Pos.	Pos.	Pos.	Pos.
V sync polarity	Pos.	Pos.	Pos.	Pos.	Pos.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	16	17	18	19	20
Signal name	MAC@16"	I/O data wide		VESA wide (NEC1)	
Definition	832*624	852*480		848*480	
Dot clock frequency (MHz)	57.2832	34.006		33.75	
H frequency (kHz)	49.725	31.722		31.02	
V frequency (Hz)	74.55	59.966		60	
H total (uS) (dots)	20.111 1152	31.524 1072		32.237 1088	
H display period (uS) (dots)	14.524 832	25.055 852		25.126 848	
H front porch (uS) (dots)	0.559 32	0.659 22		0.474 16	
H sync pulse width (uS) (dots)	1.117 64	3.764 128		3.319 112	
H back porch (uS) (dots)	3.91 224	2.047 70	NOT USED	3.319 112	NOT USED
V total (mS) (line)	13.414 667	16.676 529		16.667 517	
V display period (mS) (line)	12.549 624	15.132 480		15.474 480	
V front porch (mS) (line)	0.02 1	0.378 12		0.193 6	
V sync pulse width (mS) (line)	0.06 3	0.095 3		0.258 8	
V back porch (mS) (line)	0.784 39	1.072 34		0.741 23	
H sync polarity V sync polarity	Sync on G Sync on G	Neg Neg		Pos. Pos.	
Scan type	Non Interlaced	Non Interlaced		Non Interlaced	
Remarks					

PC mode	21	22	23	24	25
Signal name		VESA wide (NEC4)		VESA 768@60Hz	VESA 768@70Hz
Definition		1360*768		1024*768	1024*768
Dot clock frequency (MHz)		85.5		65	75
H frequency (kHz)		47.712		48.363	56.476
V frequency (Hz)		60.015		60.004	70.069
H total (uS)		20.959		20.677	17.707
(dots)		1792		1344	1328
H display period (uS)		15.906		15.754	13.653
(dots)		1360		1024	1024
H front porch (uS)		0.749		0.369	0.32
(dots)		64		24	24
H sync pulse width (uS)		1.31		2.092	1.813
(dots)		112		136	136
H back porch (uS)	NOT USED	2.994	NOT USED	2.462	1.92
(dots)		256		160	144
V total (mS)		16.662		16.666	14.272
(line)		795		806	806
V display period (mS)		16.097		15.88	13.599
(line)		768		768	768
V front porch (mS)		0.063		0.062	0.053
(line)		3		3	3
V sync pulse width (mS)		0.126		0.124	0.106
(line)		6		6	6
V back porch (mS)		0.377		0.6	0.513
(line)		18		29	29
H sync polarity		Pos.		Neg.	Neg.
V sync polarity		Pos.		Neg.	Neg.
Scan type		Non Interlaced		Non Interlaced	Non Interlaced
Remarks					

PC mode	26	27	28	29	30
Signal name	VESA 768@75Hz	VESA 768@85Hz	MAC@19"	VESA 1024@60Hz	VESA 1024@75Hz
Definition	1024*768	1024*768	1024*768	1280*1024	1280*1024
Dot clock frequency (MHz)	78.75	94.5	80	108	135
H frequency (kHz)	60.023	68.677	60.24	63.981	79.976
V frequency (Hz)	75.029	84.997	74.93	60.02	75.025
H total (uS)	16.66	14.561	16.600	15.63	12.501
(dots)	1312	1376	1328	1688	1688
H display period (uS)	13	10.836	12.8	11.852	9.481
(dots)	1024	1024	1024	1280	1280
H front porch (uS)	0.203	0.508	0.4	0.444	0.119
(dots)	16	48	32	48	2
H sync pulse width (uS)	1.219	1.016	1.2	1.037	1.067
(dots)	96	96	96	112	144
H back porch (uS)	2.235	2.201	2.2	2.296	1.837
(dots)	176	208	176	248	248
V total (mS)	13.328	11.765	13.347	16.661	13.329
(line)	800	808	804	1066	1066
V display period (mS)	12.795	11.183	12.749	16.005	12.804
(line)	768	768	768	1024	1024
V front porch (mS)	0.017	0.015	0.050	0.016	0.013
(line)	1	1	3	1	1
V sync pulse width (mS)	0.05	0.044	0.050	0.047	0.038
(line)	3	3	3	3	3
V back porch (mS)	0.466	0.524	0.498	0.594	0.475
(line)	28	36	30	38	38
H sync polarity	Pos.	Pos.	–	Pos.	Pos.
V sync polarity	Pos.	Pos.	–	Pos.	Pos.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	31	32	33	34	35
Signal name	IDC-3000G PAL 625P	IDC-3000G NTSC 525P	HDTV-J	DTV (480P)	DTV (720P)
Definition	768*576	640*480	1920*1035	644*483	1280*720
Dot clock frequency (MHz)	29.687	24.39	74.25	24.37	74.25
H frequency (kHz)	31.389	31.47	33.75	31.469	45.000
V frequency (Hz)	50	59.9	60	59.94	60
H total (uS)	31.933	31.775	29.63	31.777	22.222
(dots)	948	775	2200	774	1650
H display period (uS)	25.87	26.24	25.86	26.427	17.239
(dots)	768	640	1920	644	1280
H front porch (uS)	0.269	0.41	0.59	0.75	0.943
(dots)	8	10	44	18	70
H sync pulse width (uS)	2.526	2.46	0.59	2.35	1.077
(dots)	75	60	44	57	80
H back porch (uS)	3.267	2.665	2.59	2.25	2.963
(dots)	97	65	192	55	220
V total (mS)	19.911	16.522	16.666	16.683	16.667
(line)	625	525	562.5	525	750
V display period (mS)	18.35	15.106	15.348	15.348	16
(line)	576	480	517/518	483	720
V front porch (mS)	0.223	0.252	0.163/0.148	0.191	0.111
(line)	7	8	5.5/5	6	5
V sync pulse width (mS)	0.223	0.22	0.148	0.191	0.111
(line)	7	7	5	6	5
V back porch (mS)	1.115	0.944	1.037/1.022	0.953	0.444
(line)	35	30	35/34.5	30	20
H sync polarity	Neg	Neg	Neg	Neg	Neg
V sync polarity	Neg	Neg	Neg	Neg	Neg
Scan type	Non Interlaced	Non Interlaced	Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	36	37	38	39	40
Signal name	HDTV-W			MAC@21"	VESA 1024@85Hz
Definition	1920*1080			1152*870	1280*1024
Dot clock frequency (MHz)	74.25			100	157.5
H frequency (kHz)	33.75			68.681	91.146
V frequency (Hz)	60			75.062	85.024
H total (uS)	29.630			14.560	10.971
(dots)	2200			1456	1728
H display period (uS)	25.859			11.520	8.127
(dots)	1920			1152	1280
H front porch (uS)	0.593			0.320	0.406
(dots)	44			32	64
H sync pulse width (uS)	1.185			1.280	1.016
(dots)	88			128	160
H back porch (uS)	1.993	NOT USED	NOT USED	1.440	1.422
(dots)	148			144	224
V total (mS)	16.666			13.322	11.761
(line)	562.5			915	1072
V display period (mS)	16.000			12.667	11.235
(line)	540			870	1024
V front porch (mS)	0.074/0.059			0.044	0.011
(line)	2.5/2			3	1
V sync pulse width (mS)	0.148			0.044	0.033
(line)	5			3	3
V back porch (mS)	0.444/0.459			0.568	0.483
(line)	15/15.5			39	44
H sync polarity	Neg			Sync on G	Pos.
V sync polarity	Neg			Sync on G	Pos.
Scan type	Interlaced			Non Interlaced	Non Interlaced
Remarks					

PC mode	41	42	43	44	45
Signal name	I/O data 480@100Hz	I/O data 480@120Hz	I/O data 600@100Hz	I/O data 600@120Hz	I/O data 768@100Hz
Definition	640*480	640*480	800*600	800*600	1024*768
Dot clock frequency (MHz)	42.506	51.008	66.022	79.942	111.987
H frequency (kHz)	51.089	61.307	62.998	75.703	80.451
V frequency (Hz)	100.370	120.440	99.838	119.97	100.56
H total (uS)	19.573	16.311	15.873	13.209	12.43
(dots)	832	832	1048	1056	1392
H display period (uS)	15.057	12.574	12.117	10.007	9.144
(dots)	640	640	800	800	1024
H front porch (uS)	1.506	1.255	0.606	0.300	0.214
(dots)	64	64	40	24	24
H sync pulse width (uS)	1.317	1.098	0.969	1.001	0.786
(dots)	56	56	64	80	88
H back porch (uS)	1.694	1.412	2.181	1.901	2.286
(dots)	72	72	144	152	256
V total (mS)	9.963	8.302	10.016	8.335	9.944
(line)	509	509	631	631	800
V display period (mS)	9.395	7.829	9.524	7.926	9.546
(line)	480	480	600	600	768
V front porch (mS)	0.020	0.016	0.016	0.013	0.012
(line)	1	1	1	1	1
V sync pulse width (mS)	0.059	0.049	0.048	0.04	0.037
(line)	3	3	3	3	3
V back porch (mS)	0.489	0.408	0.429	0.357	0.348
(line)	25	25	27	27	28
H sync polarity	Neg	Neg	Pos.	Pos.	Neg
V sync polarity	Neg	Neg	Pos.	Pos.	Neg
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	46	47	48	49	50
Signal name	I/O data 768@120Hz	I/O data 1024@100Hz	EWS 4800@71Hz	RCA-STB 1080A	DTV(570P)
Definition	1024*768	1280*1024	1280*1024	1920*1034	768*576
Dot clock frequency (MHz)	132.953	190.908	125	81	29.538
H frequency (kHz)	95.512	108.47	75.12	33.75	31.25
V frequency (Hz)	119.39	100.06	71.204	60	50
H total (uS)	10.47	9.219	13.312	29.630	31.993
(dots)	1392	1760	1664	2400	945
H display period (uS)	7.702	6.7	10.24	23.7	26
(dots)	1024	1280	1280	1920	768
H front porch (uS)	0.181	0.545	0.256	0.59	0.745
(dots)	24	104	32	48	22
H sync pulse width (uS)	0.662	0.75	1.024	3.56	2.35
(dots)	88	143	128	288	69
H back porch (uS)	1.925	1.22	1.792	1.78	2.9
(dots)	256	233	224	144	86
V total (mS)	8.376	9.994	14.044	16.652	20
(line)	800	1084	1055	562	625
V display period (mS)	8.041	9.44	13.631	15.319	18.432
(line)	768	1024	1024	517	576
V front porch (mS)	0.010	0.01	0.04	0.059	0.16
(line)	1	1	3	2	5
V sync pulse width (mS)	0.031	0.03	0.04	0.089	0.16
(line)	3	3	3	3	5
V back porch (mS)	0.293	0.52	0.333	1.185	1.248
(line)	28	56	25	40	39
H sync polarity	Neg	Pos.	Neg	Pos.	Neg
V sync polarity	Neg	Pos.	Neg	Pos.	Neg
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Interlaced	Non Interlaced
Remarks					

PC mode	51	52	53	54	55
Signal name	VESA 864@75Hz	I/O data W_XGA@56Hz	I/O wide XGA	VESA 1200@60Hz	VESA 1200@65Hz
Definition	1152*864	1280*768	1376*768	1600*1200	1600*1200
Dot clock frequency (MHz)	108	76.064	87.34	162	175.5
H frequency (kHz)	67.5	45.064	48.307	75	81.25
V frequency (Hz)	75	56.187	59.934	60	65
H total (uS)	14.815	22.192	20.701	13.333	12.308
(dots)	1600	1688	1808	2160	2160
H display period (uS)	10.667	16.828	15.755	9.877	9.117
(dots)	1152	1280	1376	1600	1600
H front porch (uS)	0.593	0.631	0.366	0.395	0.365
(dots)	64	48	32	64	64
H sync pulse width (uS)	1.185	1.472	1.466	1.185	1.094
(dots)	128	112	128	192	192
H back porch (uS)	2.37	3.26	3.114	1.877	1.732
(dots)	256	248	272	304	304
V total (mS)	13.333	17.78	16.685	16.667	15.385
(line)	900	802	806	1250	1250
V display period (mS)	12.8	17.043	15.898	16	14.769
(line)	864	768	768	1200	1200
V front porch (mS)	0.015	0.044	0.062	0.013	0.012
(line)	1	2	3	1	1
V sync pulse width (mS)	0.044	0.067	0.124	0.04	0.037
(line)	3	3	6	3	3
V back porch (mS)	0.474	0.644	0.6	0.613	0.566
(line)	32	29	29	46	46
H sync polarity	Pos.	Pos.	Neg	Pos.	Pos.
V sync polarity	Pos.	Pos.	Pos.	Pos.	Pos.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	56	57	58	59	60
Signal name	VESA 1200@70Hz	VESA 1200@75Hz	VESA 1200@85Hz	HP 1024@72Hz	SUN 900@66Hz
Definition	1600*1200	1600*1200	1600*1200	1280*1024	1152*900
Dot clock frequency (MHz)	189	202.5	229.5	135	92.941
H frequency (kHz)	87.5	93.75	106.25	78.130	61.796
V frequency (Hz)	70	75	85	72.009	65.95
H total (uS)	11.429	10.667	9.412	12.8	16.182
(dots)	2160	2160	2160	1728	1504
H display period (uS)	8.466	7.901	6.972	9.481	12.395
(dots)	1600	1600	1600	1280	1152
H front porch (uS)	0.339	0.316	0.279	0.474	0.312
(dots)	64	64	64	64	29
H sync pulse width (uS)	1.016	0.948	0.837	1.442	1.377
(dots)	192	192	192	192	128
H back porch (uS)	1.608	1.501	1.325	1.442	2.098
(dots)	304	304	304	192	195
V total (mS)	14.286	13.333	11.765	13.887	15.163
(line)	1250	1250	1250	1085	937
V display period (mS)	13.714	12.8	11.294	13.107	14.564
(line)	1200	1200	1200	1024	900
V front porch (mS)	0.011	0.011	0.009	0.038	0.032
(line)	1	1	1	3	2
V sync pulse width (mS)	0.034	0.032	0.028	0.038	0.065
(line)	3	3	3	3	4
V back porch (mS)	0.526	0.491	0.433	0.704	0.502
(line)	46	46	46	55	31
H sync polarity	Pos.	Pos.	Pos.	SOG.	Csync
V sync polarity	Pos.	Pos.	Pos.	SOG.	Csync
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	61	62	63	64	65
Signal name	SUN 900@76Hz	SGI 768@60Hz	VESA 960@60Hz	VESA 960@60Hz	VESA 1050@60Hz
Definition	1152*900	1024*768	1280*960	1280*960	1400*1050
Dot clock frequency (MHz)	105.561	70	108	148.5	108
H frequency (kHz)	71.710	49.716	60	85.938	63.981
V frequency (Hz)	76.047	60.043	60	85.002	60.020
H total (uS)	13.945	20.114	16.667	11.636	15.630
(dots)	1472	1408	1800	1728	1688
H display period (uS)	10.913	14.629	11.852	8.62	12.963
(dots)	1152	1024	1280	1280	1400
H front porch (uS)	0.152	2.057	0.889	0.431	0.444
(dots)	16	144	96	64	48
H sync pulse width (uS)	0.909	1.371	1.037	1.077	1.037
(dots)	96	96	112	160	112
H back porch (uS)	1.97	2.507	2.889	1.508	1.185
(dots)	208	144	312	224	128
V total (mS)	13.15	16.655	16.667	11.764	16.661
(line)	943	828	1000	1011	1066
V display period (mS)	12.55	15.448	16	11.171	16.411
(line)	900	768	960	960	1050
V front porch (mS)	0.028	0.443	0.017	0.012	0.016
(line)	2	22	1	1	1
V sync pulse width (mS)	0.112	0.06	0.05	0.035	0.047
(line)	8	3	3	3	3
V back porch (mS)	0.460	0.704	0.6	0.547	0.188
(line)	33	35	36	47	12
H sync polarity	Csync	SOG.	Pos.	Pos.	Neg
V sync polarity	Csync	SOG.	Pos.	Pos.	Neg
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	66~74
Signal name	NOT USED
Definition	
Dot clock frequency (MHz)	
H frequency (kHz)	
V frequency (Hz)	
H total (uS) (dots)	
H display period (uS) (dots)	
H front porch (uS) (dots)	
H sync pulse width (uS) (dots)	
H back porch (uS) (dots)	
V total (mS) (line)	
V display period (mS) (line)	
V front porch (mS) (line)	
V sync pulse width (mS) (line)	
V back porch (mS) (line)	
H sync polarity V sync polarity	
Scan type	
Remarks	

PC mode	75	80	81	82	83
Signal name	1080I 50Hz	W_XGA		400H	350H
Definition	1920*1080	1280*768		720*400	720*350
Dot clock frequency (MHz)	74.25	81.0		28.3	28.3
H frequency (kHz)	28.125	47.99		31.5	31.5
V frequency (Hz)	50	59.34		70.1	70.1
H total (uS)	35.556	20.84		31.78	31.78
(dots)	2640	1688		900	900
H display period (uS)	25.859	15.80		25.42	25.42
(dots)	1920	1280		720	720
H front porch (uS)	6.519	0.593		0.636	0.636
(dots)	484	48		18	18
H sync pulse width (uS)	1.185	1.38		3.81	3.81
(dots)	88	112		108	108
H back porch (uS)	1.993	3.06	NOT USED	1.91	1.91
(dots)	148	248		54	54
V total (mS)	10	16.713		14.269	14.269
(line)	562.5	802		449	449
V display period (mS)	9.6	16.005		12.712	11.123
(line)	540	768		400	350
V front porch (mS)	0.074/0.059	0.063		0.424	1.307
(line)	2.5/2	3		12	37
V sync pulse width (mS)	0.148	0.125		0.064	0.064
(line)	5	6		2	2
V back porch (mS)	0.444/0.459	0.521		1.112	1.907
(line)	15/15.5	25		35	60
H sync polarity	Neg.	Pos.		Neg.	Pos.
V sync polarity	Neg.	Neg.		Pos.	Neg.
Scan type	Interlaced	Non Interlaced		Non Interlaced	Non Interlaced
Remarks					

PC mode	84	85	86	87	88
Signal name	720P 24Hz	1080P 24Hz	720P 50Hz	1080I 48Hz	NOT USED
Definition	1280*720	1920*1080	1280*720	1920*1080	
Dot clock frequency (MHz)	74.176	74.176	74.25	74.1758	
H frequency (kHz)	17.982	26.973	37.5	26.973	
V frequency (Hz)	23.976	23.976	50	37.074	
H total (uS)	55.611	37.704	26.667	37.074	
(dots)	4125	2750	1980	2750	
H display period (uS)	17.256	25.884	17.239	25.884	
(dots)	1280	1920	1280	1920	
H front porch (uS)	34.310	8.008	5.387	8.008	
(dots)	2545	594	400	594	
H sync pulse width (uS)	1.078	1.078	1.078	1.078	
(dots)	80	88	80	88	
H back porch (uS)	2.256	1.995	2.963	1.995	
(dots)	220	148	220	148	
V total (mS)	41.706	41.708	20	20.855	
(line)	750	1125	750	1125	
V display period (mS)	40.040	40.040	19.2	20.020	
(line)	720	1080	720	1080	
V front porch (mS)	0.278	0.148	0.133	0.093	
(line)	5	4	5	5	
V sync pulse width (mS)	0.278	0.185	0.133	0.185	
(line)	5	5	5	10	
V back porch (mS)	1.112	1.335	0.533	0.556	
(line)	20	36	20	30	
H sync polarity	Neg	Neg	Neg	Neg	
V sync polarity	Neg	Neg	Neg	Neg	
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Interlaced	
Remarks					

PC mode	89	90	91	92	93
Signal name	NOT USED	480i(60Hz)	DTV(480P)	DTV(480P)	DTV(720P)
Definition		720*480Hz	640*480Hz	720*480Hz	1280*720Hz
Dot clock frequency (MHz)		27.000	25.175	27.000	74.250
H frequency (kHz)		15.734	31.469	31.469	45.000
V frequency (Hz)		59.94	59.940	59.94	60.000
H total (uS) (dots)		16.555 1716	31.777 800	31.777 858	22.222 1650
H display period (uS) (dots)		53.333 1440	25.422 640	26.666 720	17.239 1280
H front porch (uS) (dots)		1.407 38	0.635 16	0.592 16	1.481 110
H sync pulse width (uS) (dots)		4.593 124	3.813 96	2.296 62	0.538 40
H back porch (uS) (dots)		4.222 114	1.906 48	2.222 60	2.963 220
V total (mS) (line)		16.635 262	16.683 525	19.444 525	10.101 750
V display period (mS) (line)		15.253 240	15.253 480	15.253 480	16.000 720
V front porch (mS) (line)		0.254 4	0.317 10	0.333 9	0.067 5
V sync pulse width (mS) (line)		0.191 3	0.064 2	0.191 6	0.111 5
V back porch (mS) (line)		0.953 15	1.049 33	0.953 30	0.444 20
H sync polarity V sync polarity		Neg Neg	Neg Neg	Neg Neg	Pos Pos
Scan type		Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks		HDCP*	HDCP	HDCP	HDCP

*HDCP : High-bandwidth Digital Content Protection

PC mode	94	95	96	97	98
Signal name	HDTV-W	NOT USED			
Definition	1920*1080Hz				
Dot clock frequency (MHz)	74.250				
H frequency (kHz)	33.750				
V frequency (Hz)	60.000				
H total (uS) (dots)	29.629 2200				
H display period (uS) (dots)	25.859 1920				
H front porch (uS) (dots)	1.185 88				
H sync pulse width (uS) (dots)	0.592 44				
H back porch (uS) (dots)	1.993 148				
V total (mS) (line)	7.582 563				
V display period (mS) (line)	16.000 540				
V front porch (mS) (line)	0.040 3				
V sync pulse width (mS) (line)	0.148 5				
V back porch (mS) (line)	0.444 15				
H sync polarity V sync polarity	Pos Pos				
Scan type	Interlaced				
Remarks	HDCP				

*HDCP : High-bandwidth Digital Content Protection

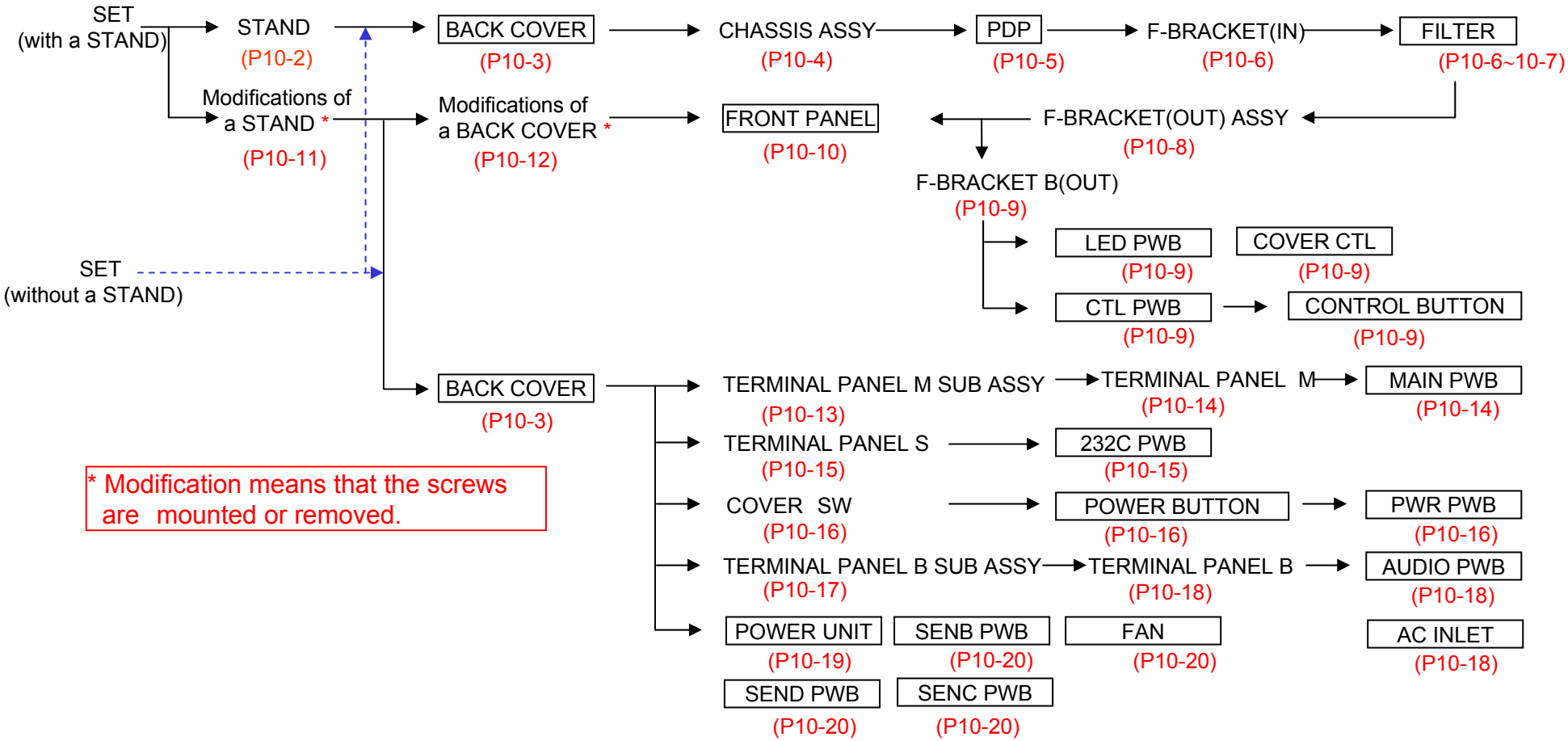
METHOD OF DISASSEMBLY

(Caution) 1. Before disassembly, turn power off the main unit and pull out the power plug from the wall outlet.
2. Use a screwdriver with a fitting size. Otherwise, the screw threads may be damaged.
3. Reassembly can be carried out in the reverse order for disassembly. Refer to the disassembly procedures and forward reassembly in the reverse order.
4. The order for taking out the parts (or components) is indicated by the foregoing numeral that is attached to the name of each part.
5. The wire connector symbol is indicated by two digits of Marking ☐☐. Read CN-☐☐ when examining the table of parts.
6. Class A or Class B in the text is applicable to the models specified below.

CLASS A: PX-61XM3J,61XM3A,61XM3W,61XM3G, CLASS B: PDP-614MX,PRO-1410HD,PX-61XR3A,61XR3W,61XR3G

1. Outlined method of disassembly

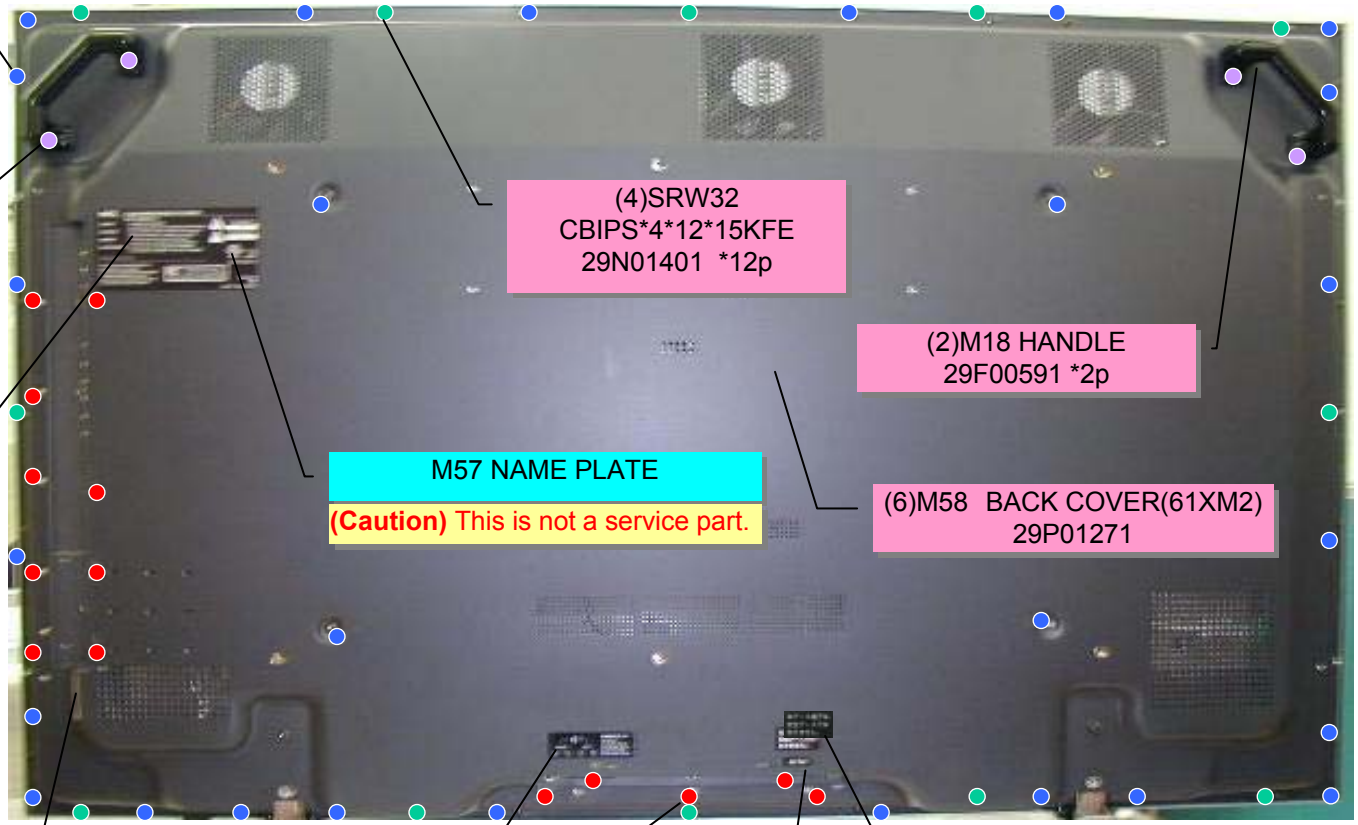
The outlined procedures for the disassembly of the major parts [ ] are shown below (disassembled in the direction of →).
In regard to the details of disassembly, cautions, etc., refer to the method of replacement for each part [page indicated in ( )].



* Modification means that the screws are mounted or removed.

2. STAND

3. BACK COVER



(5)SRW33
PL-CPIMS*4*12*15KFE
29N01431 *14p

(1)SRW34
PL-CPIMS*4*16*3KF
910E4066 *4p

M31 GS COVER
29H02782
(Caution) Replacement is impossible unless the NAME PLATE is removed.

(4)SRW32
CBIPS*4*12*15KFE
29N01401 *12p

(2)M18 HANDLE
29F00591 *2p

M57 NAME PLATE
(Caution) This is not a service part.

(6)M58 BACK COVER(61XM2)
29P01271

M03 SERIAL LABEL
24L44731

M56 SPEAKER LABEL
29L03552

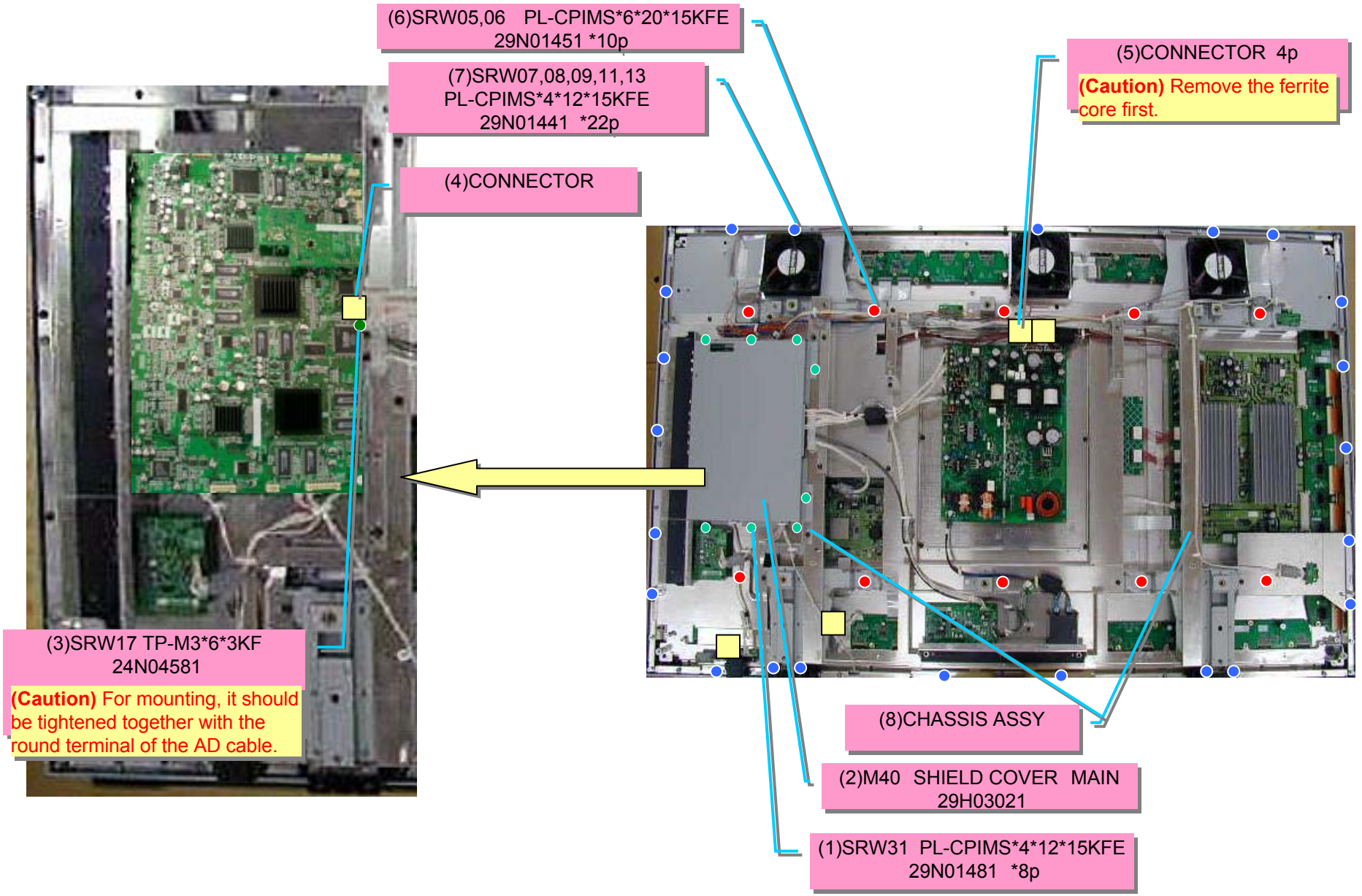
M63 LABEL(EARTH)
24L44791

(3)SRW35 PL-CPIMS*3*10*15KFE
29N01431 *14p

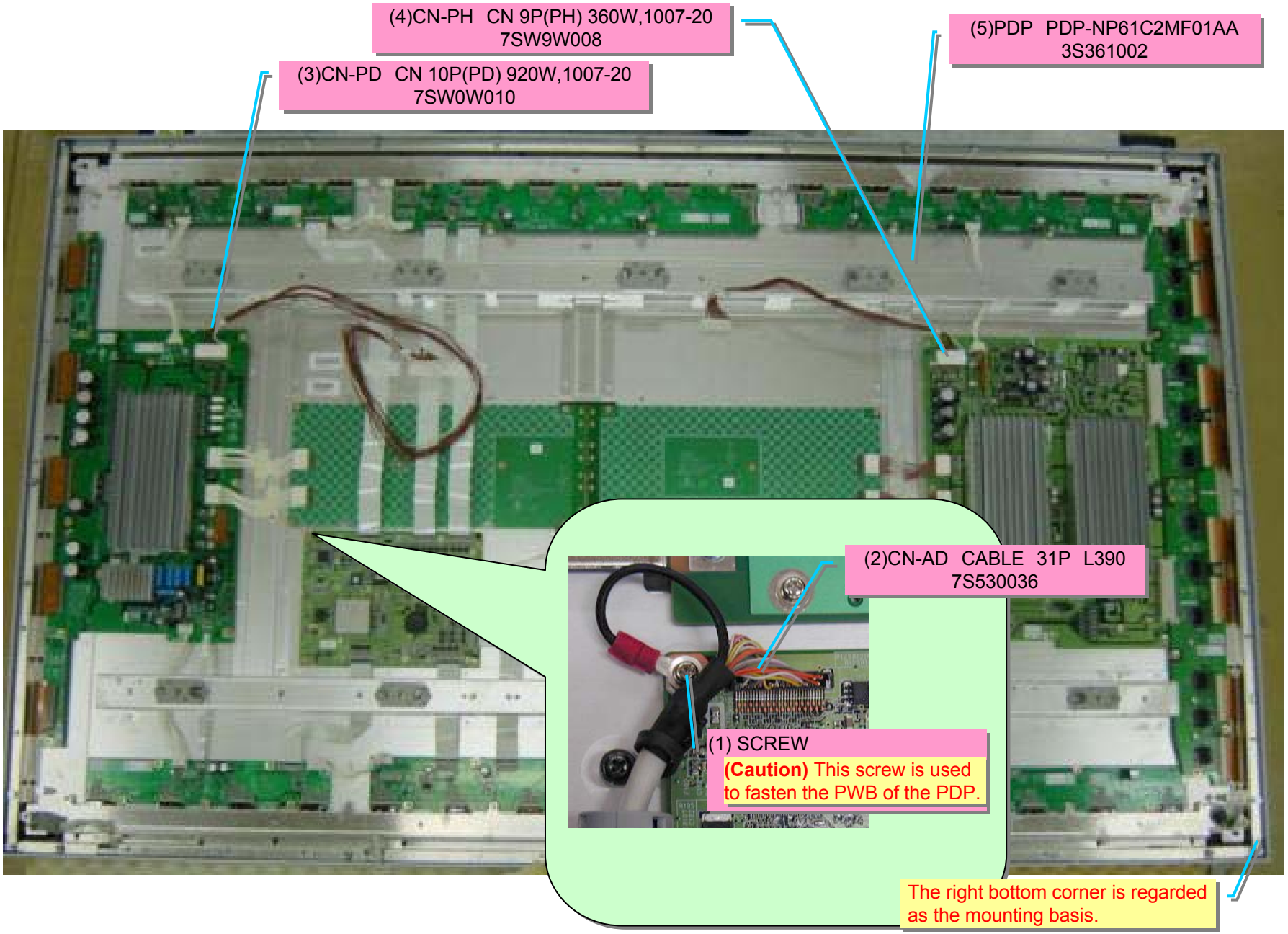
M55 AC IN LABEL
29L00491

(Caution) To be used only for the PX-61XM3.

4. CHASSIS ASSY

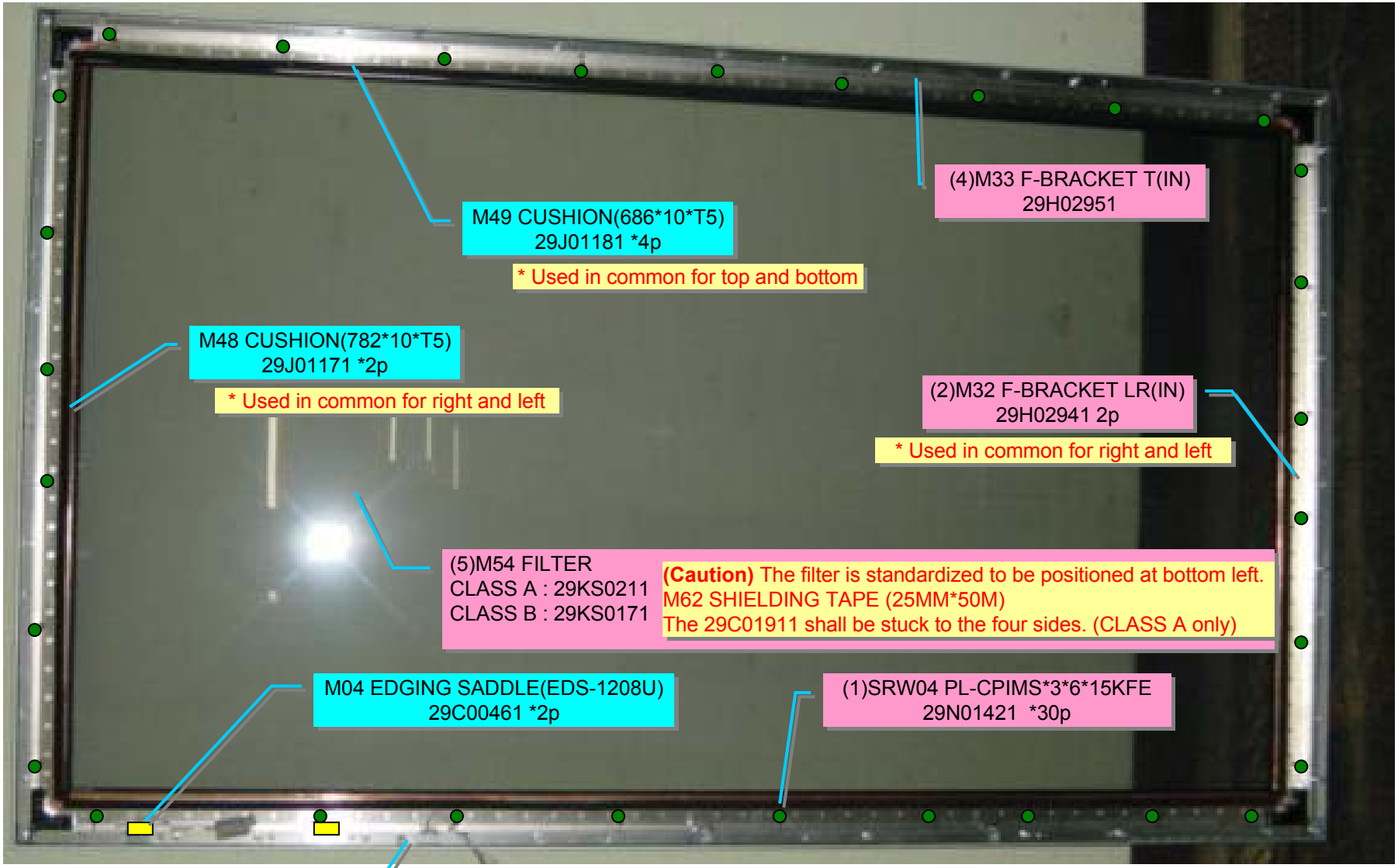


5. PDP


(4)CN-PH CN 9P(PH) 360W,1007-20
7SW9W008
(5)PDP PDP-NP61C2MF01AA
3S361002
(3)CN-PD CN 10P(PD) 920W,1007-20
7SW0W010
(2)CN-AD CABLE 31P L390
7S530036
(1) SCREW
(Caution) This screw is used to fasten the PWB of the PDP.
The right bottom corner is regarded as the mounting basis.

6. F-BRACKET(IN) /FILTER

(Caution) Once the shielding tape and the cushion are removed, they must not be used again because their adhesive strength has been reduced.

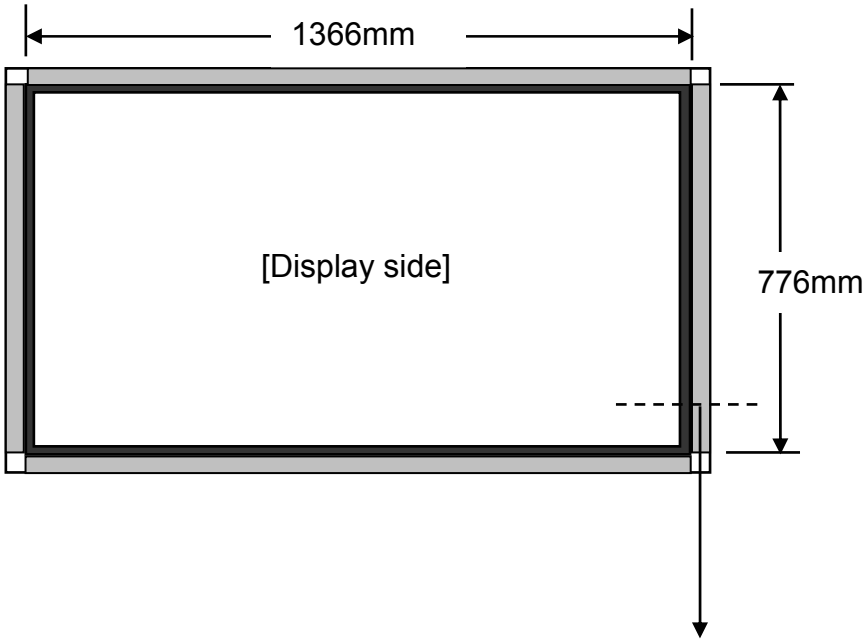


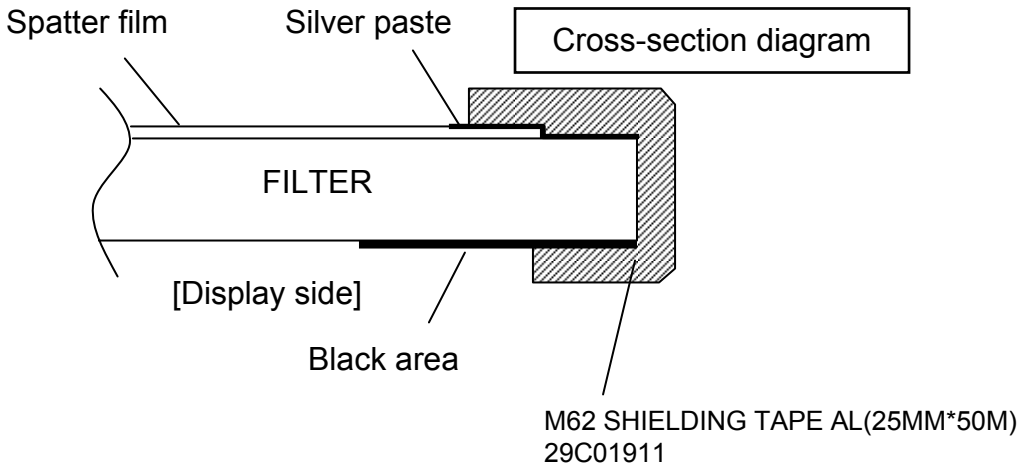
7. FILTER(CLASS A)

(Caution) No SHIELDING TAPE has been stuck to the service part FILTER. Therefore, in the case of filter replacement, please order the SHIELDING TAPE and stick it as illustrated below.

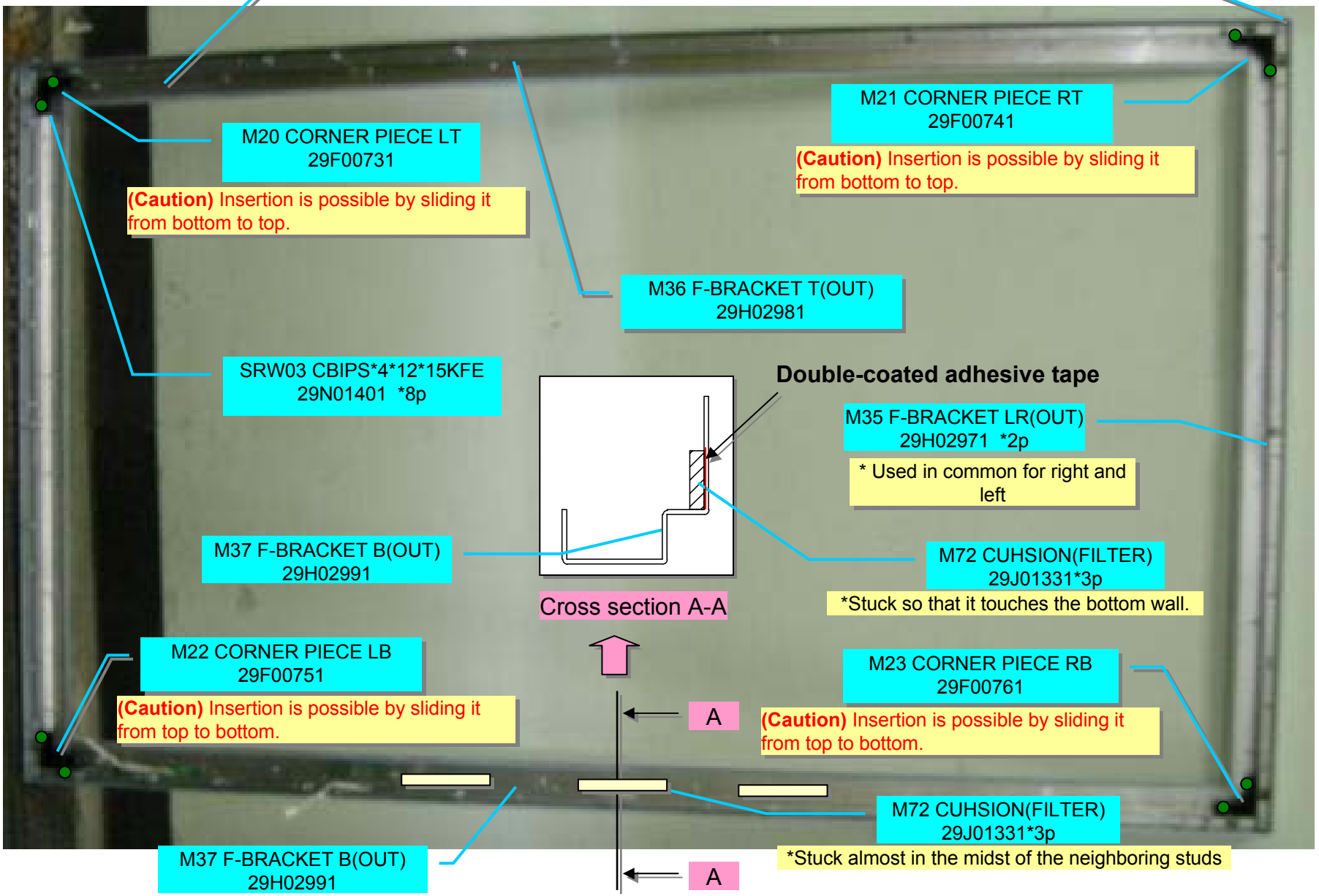
SHIELDING TAPE

(Caution) Once the shielding tape is removed, it must not be used again because its adhesive strength has been reduced.

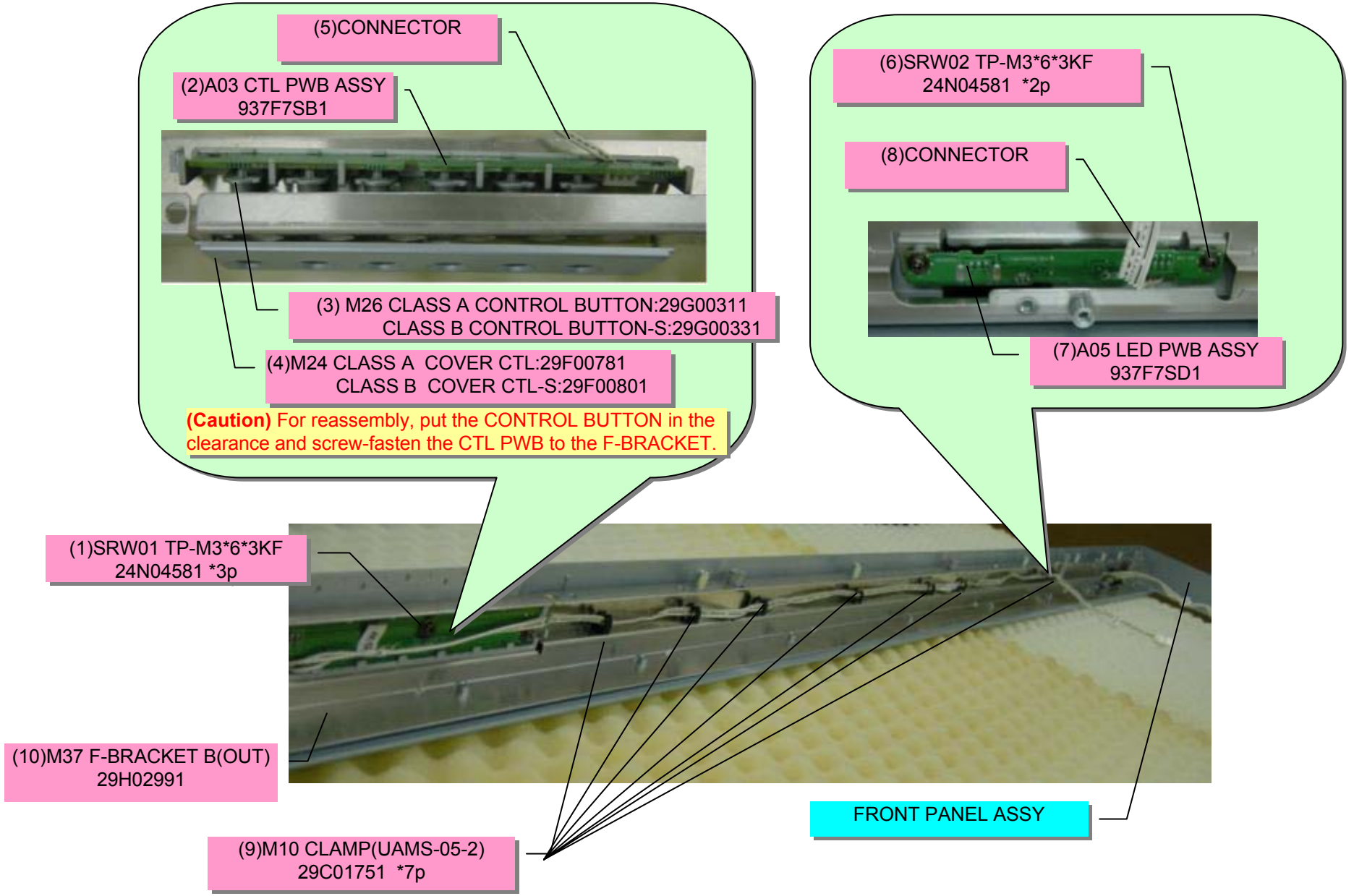




8. F-BRACKET(OUT) ASSY

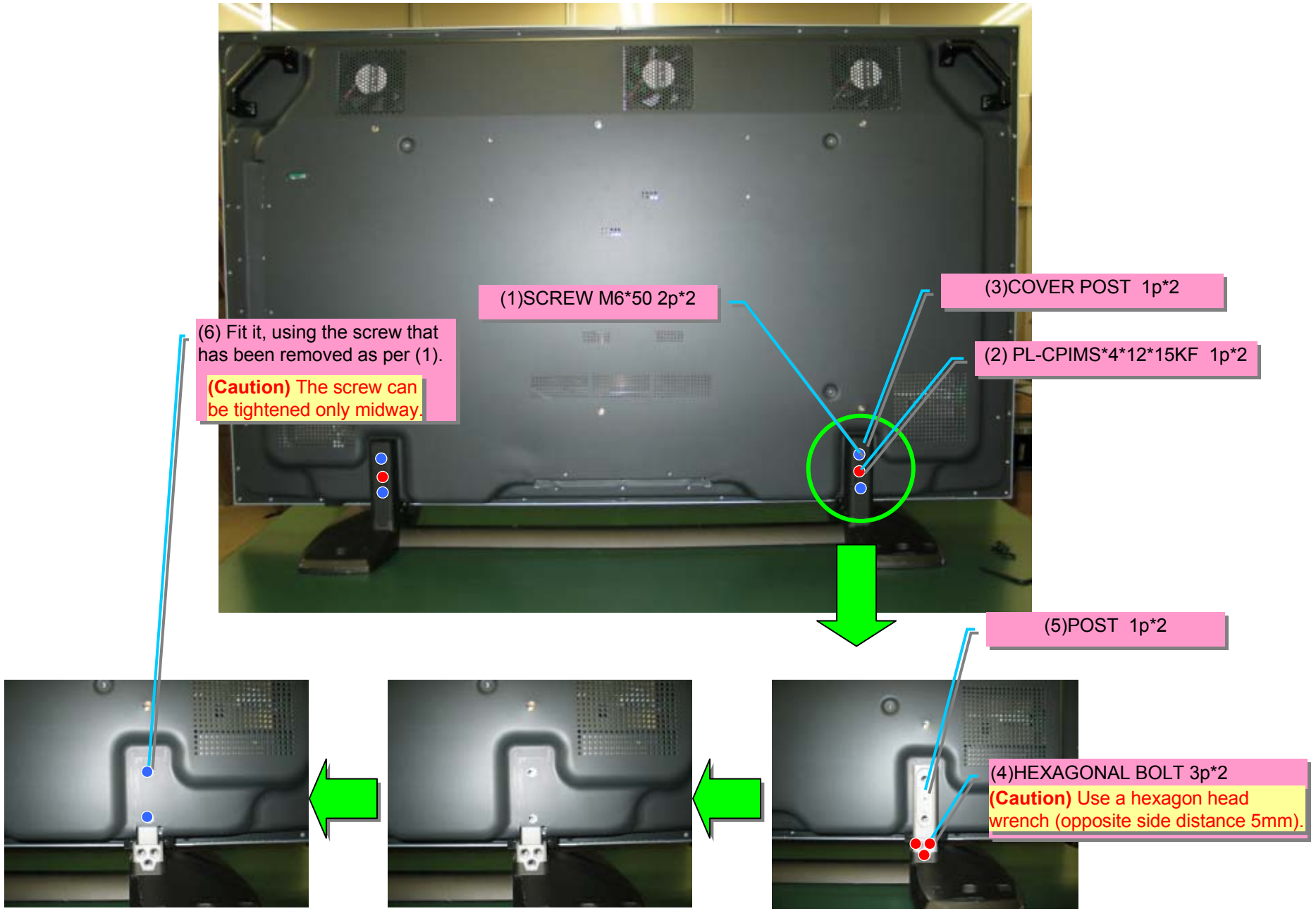


9. LED PWB/CTL PWB/F-BRACKET B(OUT)/COVER CTL/CONTROL BUTTON



10. FRONT PANEL

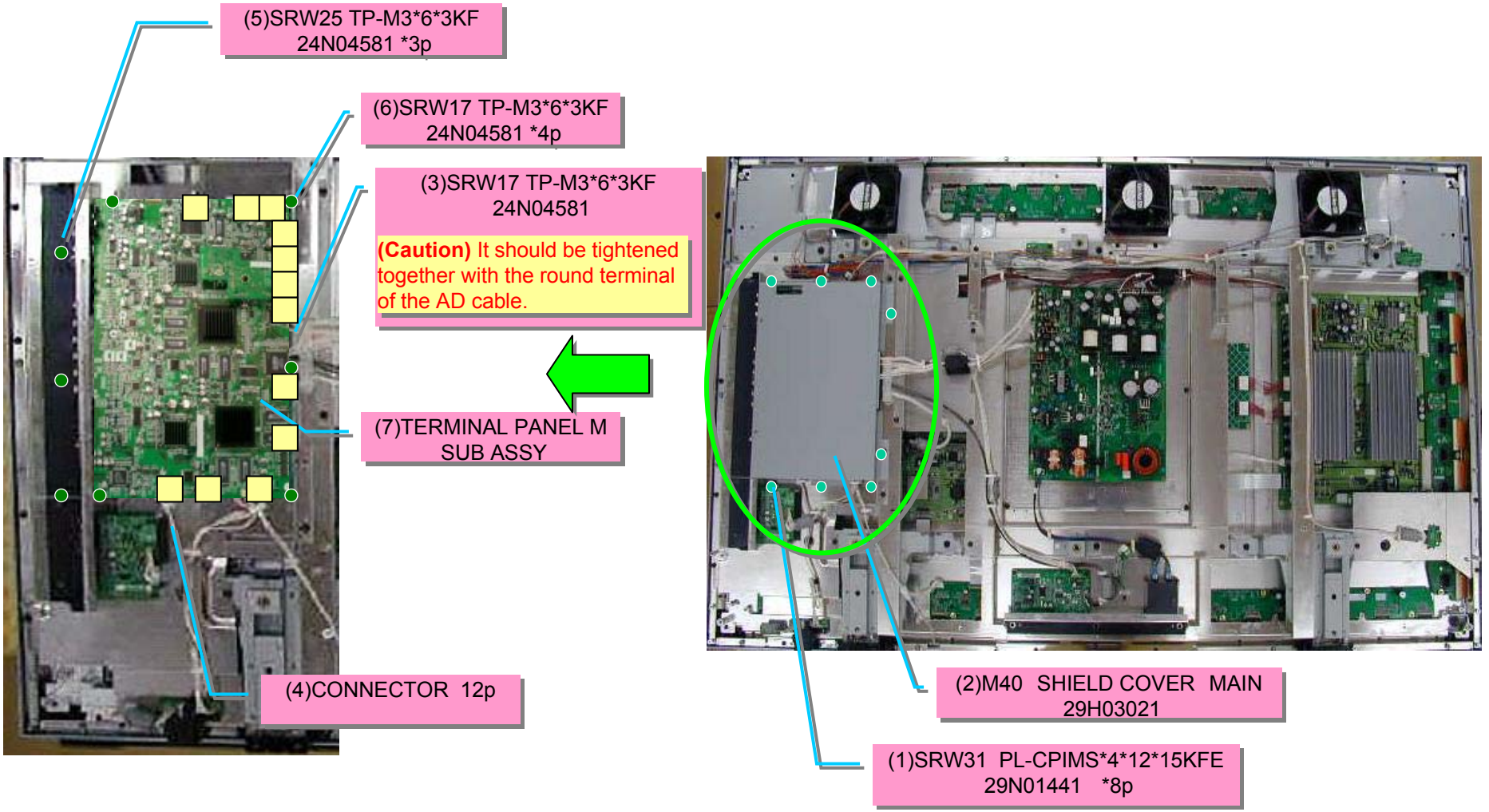
11. STAND (modification)



12. BACK COVER (modification)

(Caution) The illustration below shows a case when the STAND has been removed.

13. TERMINAL PANEL M SUB ASSY



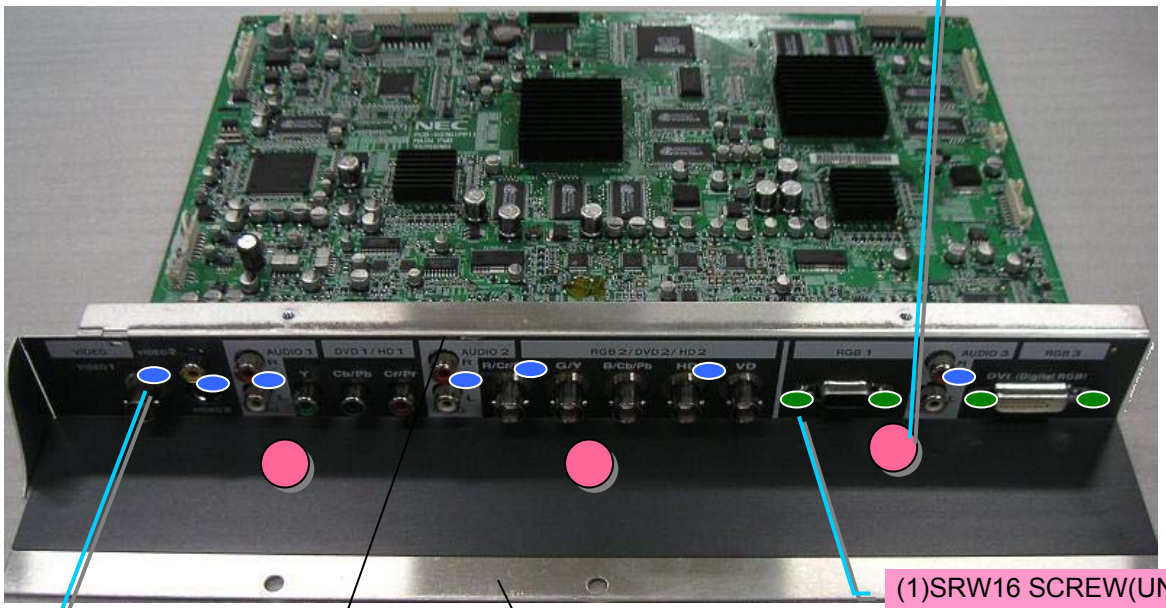
14. TERMINAL PANEL M /MAIN PWB

(Caution) Please note that no DS connector is furnished even though the MAIN PWB is ordered.

(6)A01 MAIN 1 PWB ASSY
Refer to Parts List

(Caution) After sticking the TERMINAL SHEET to the TERMINAL PANEL, push the peripheral area of the screw hole to strengthen the adhesion.
(In 3 positions)

(5)M27 SHIELD PLATE MAIN(42XM3)
29H03541



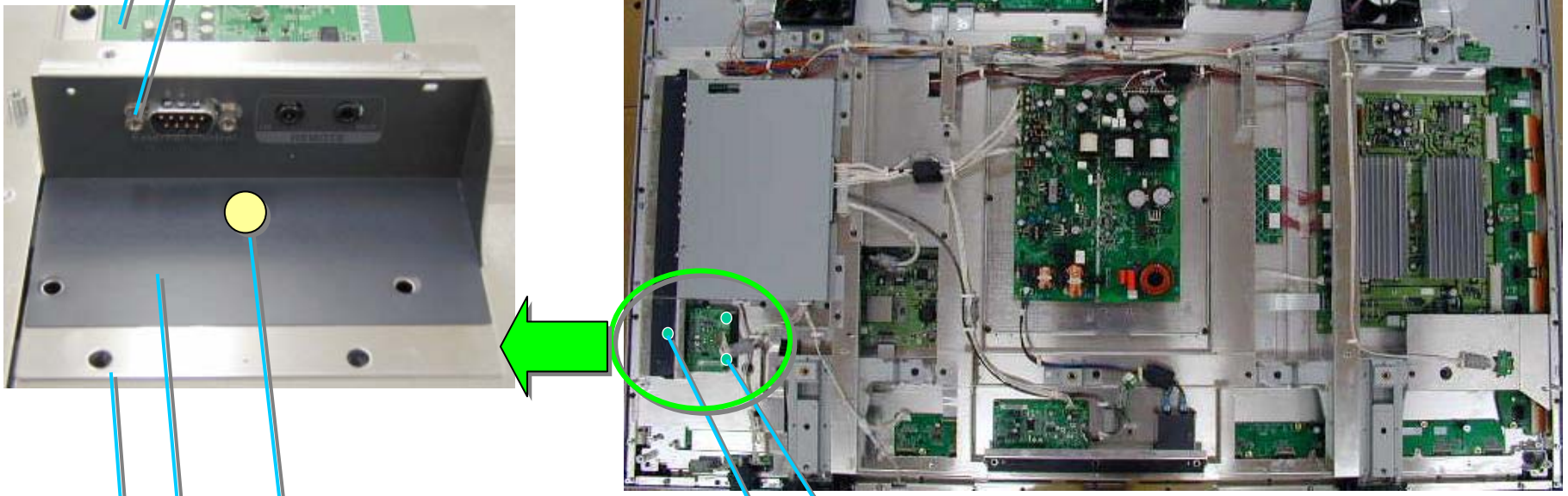
(2)SRW15 CBIPS*3*8*3KF
24N03691 *7p

(3)M52 TERMINAL SHEET M(50XM3)W
29K00571

(1)SRW16 SCREW(UNC4-40/4-40)
32990229 *4p
(Caution) Use a hexagon head driver (opposite side distance 5mm)

(4)M28 TERMINAL PANEL M(50XM3)
29H02551

15. TERMINAL PANEL S/ 232C PWB



(4)A02 232C PWB ASSY
937F7SA1

(3)SRW19 SCREW(UNC4-40/4-40)
32990229 *2p

(Caution) Use a hexagon head driver (opposite side distance 5mm).

(Caution) After sticking the TERMINAL SHEET to the TERMINAL PANEL, push the peripheral area of the screw hole to strengthen the adhesion.

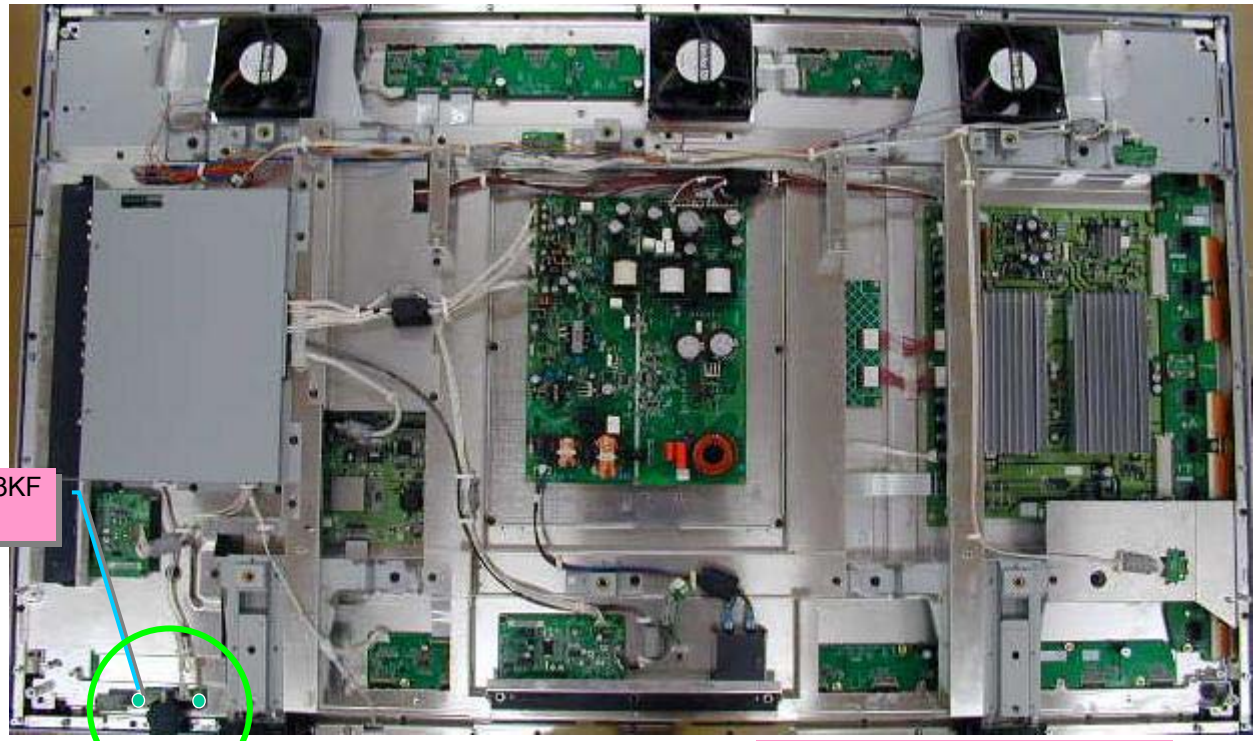
(1)SRW20 TP-M3*6*3KF
24N04581 *1p

(2)SRW26 TP-M3*6*3KF
24N04581

(5)M53 TERMINAL SHEET S(50XM3)W
29K00581

(6)M29 TERMINAL PANEL S(50XM3)
29H02561

16. COVER SW/POWER BUTTON/PWR PWB

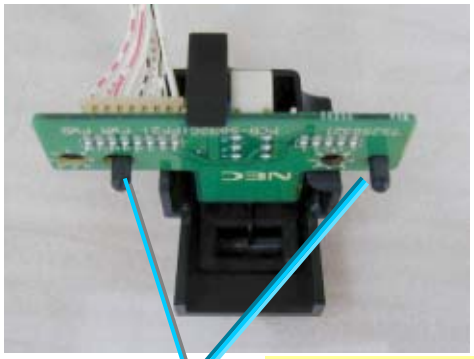


(1)SRW28 TP-M3*6*3KF
24N04581 *2p

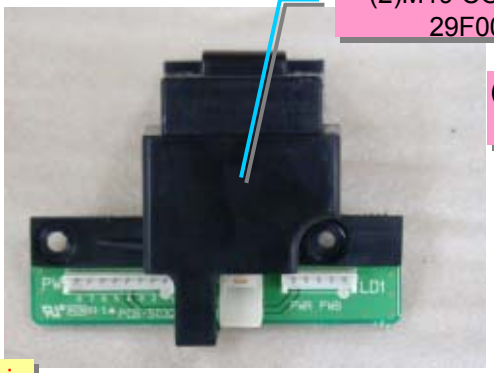
(3)M25 POWER BUTTON(50XM3)
29G00281

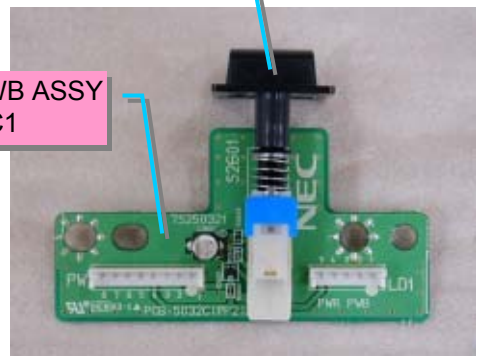
(2)M19 COVER SW
29F00721

(4)A04 PWR PWB ASSY
937F7SC1



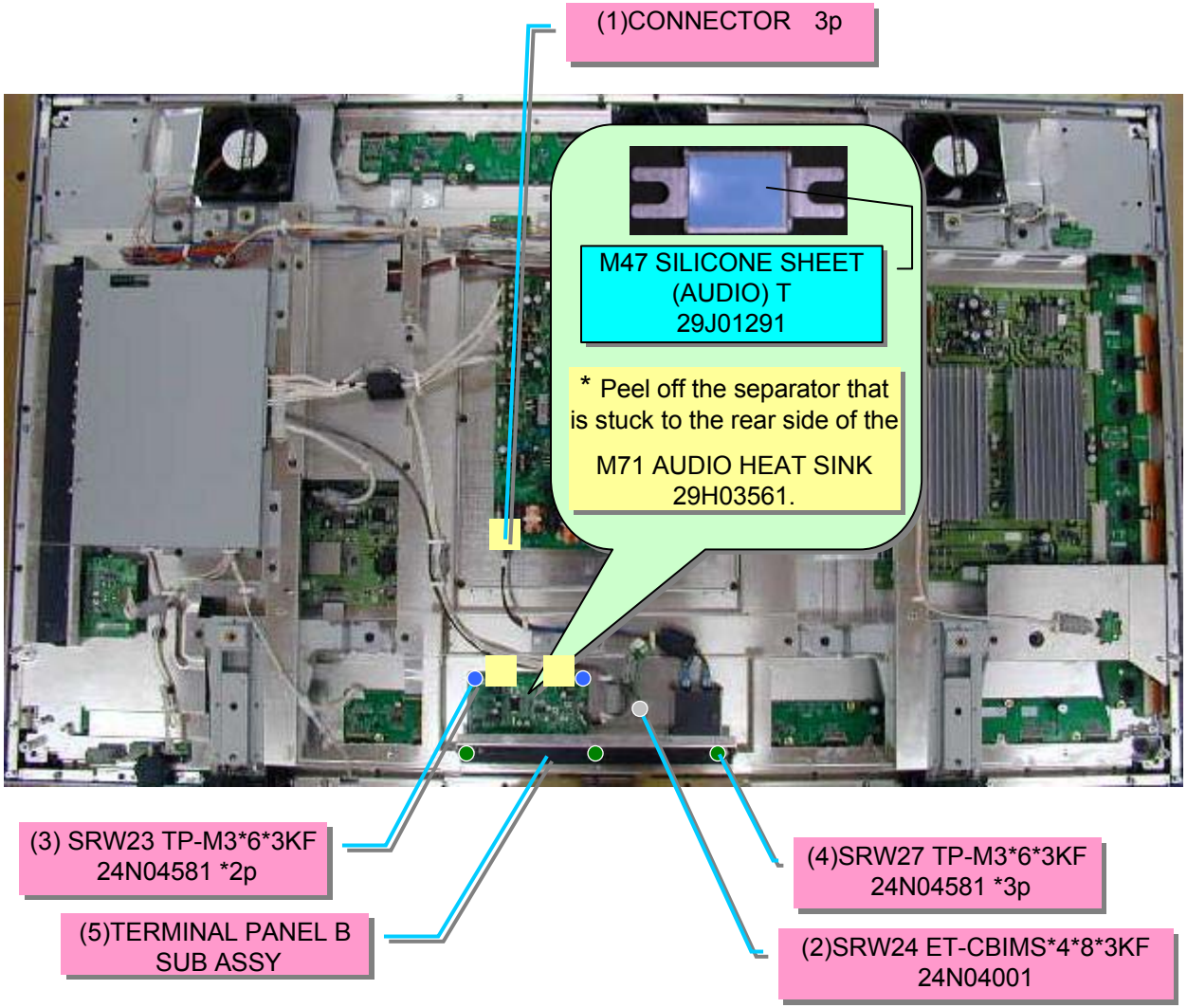
Rear side



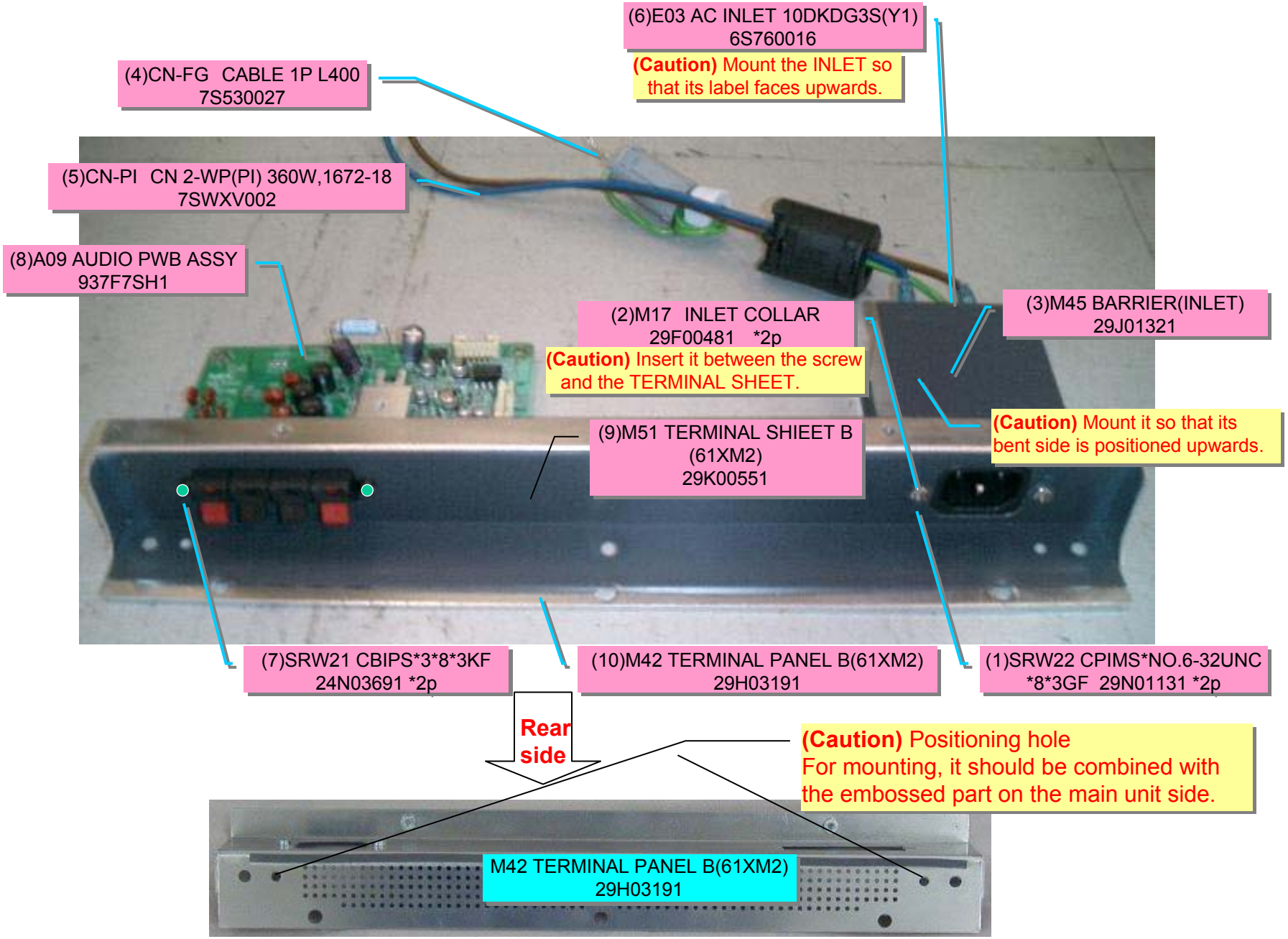


(Caution) Positioning pin Use it in the case of reassembly.

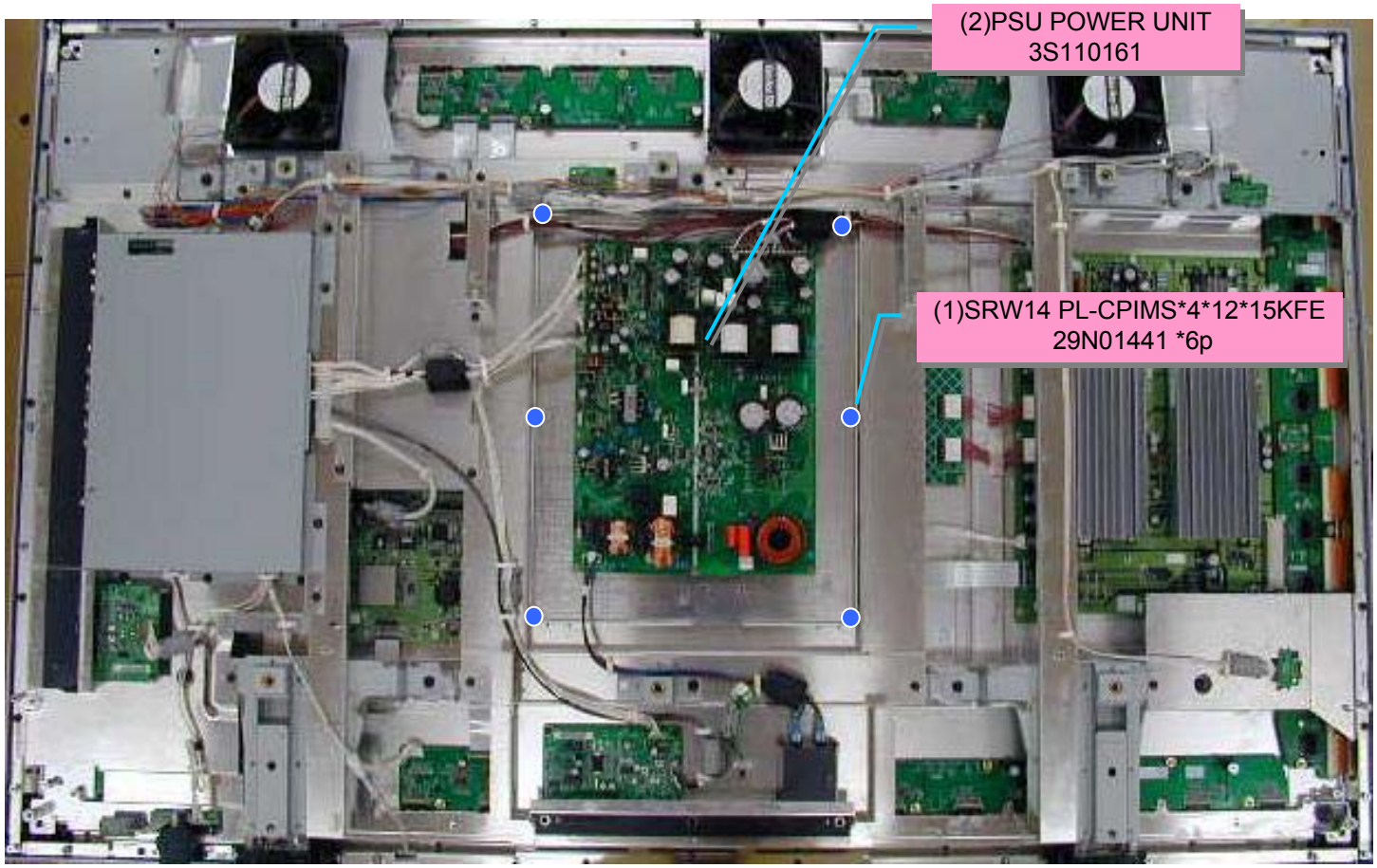
17. TERMINAL PANEL B SUB ASSY



18. TERMINAL PANEL B/AUDIO PWB/AC INLET

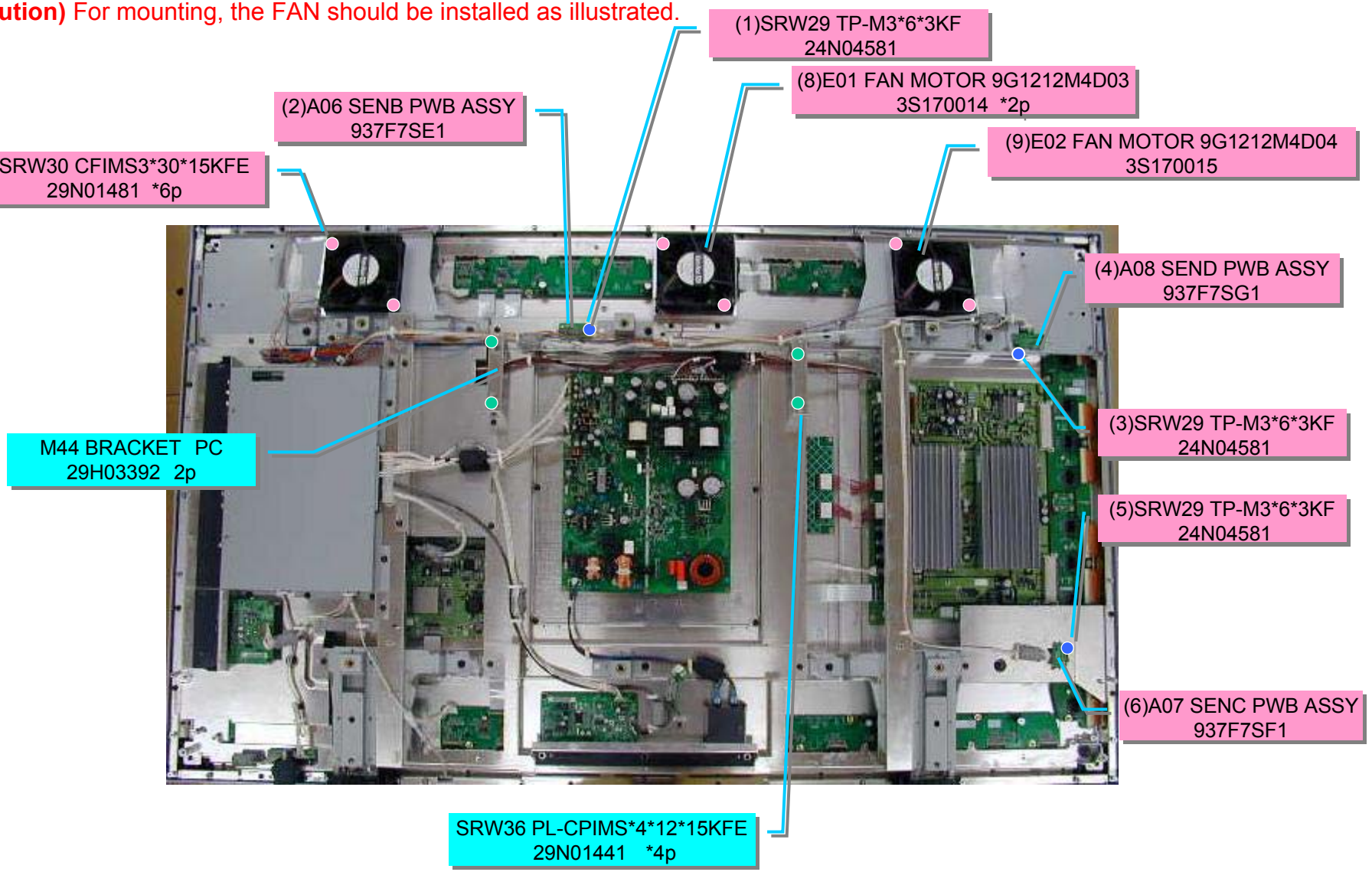


19. POWER UNIT

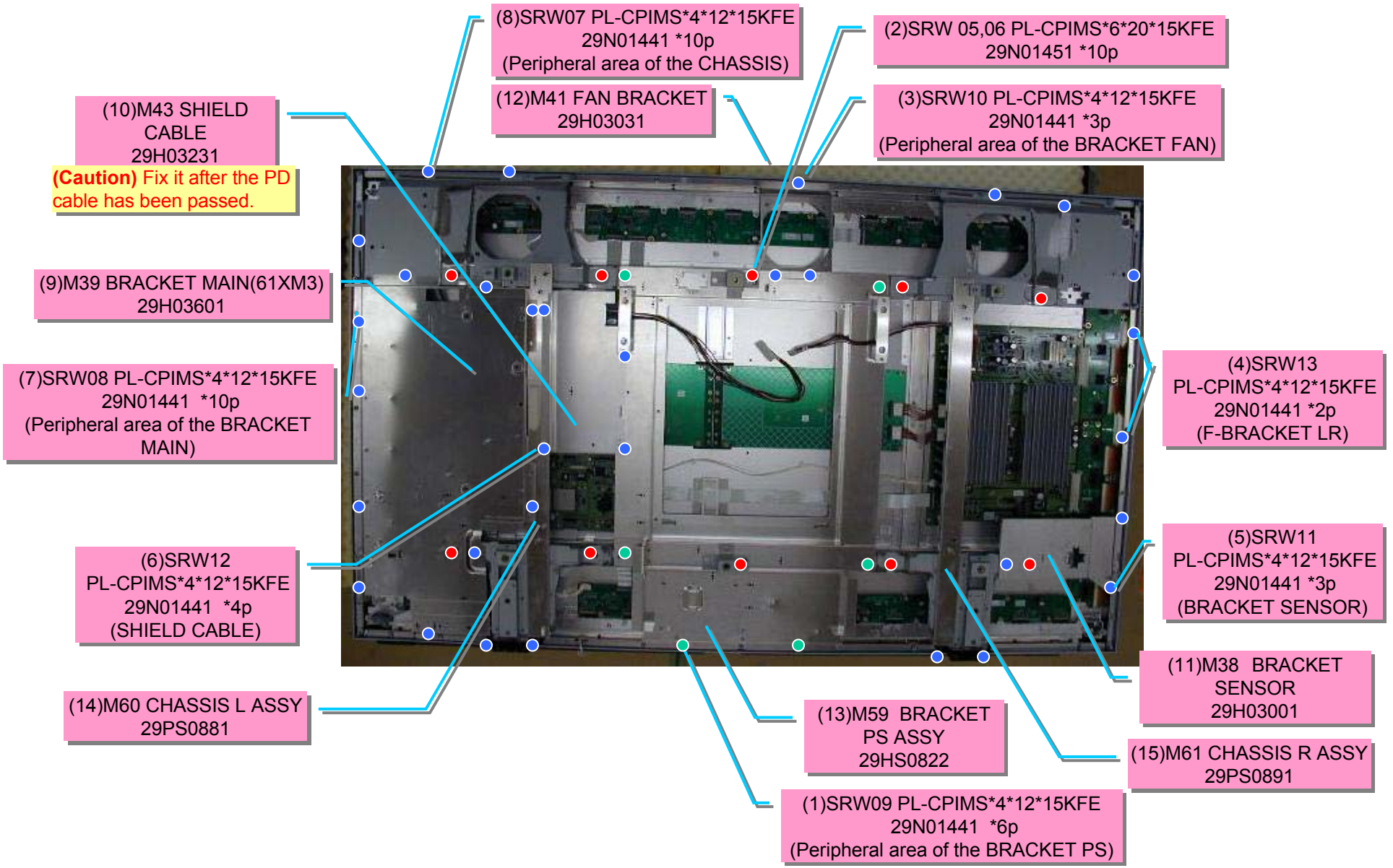


20. SENB PWB/SENC PWB/SEND PWB/FAN

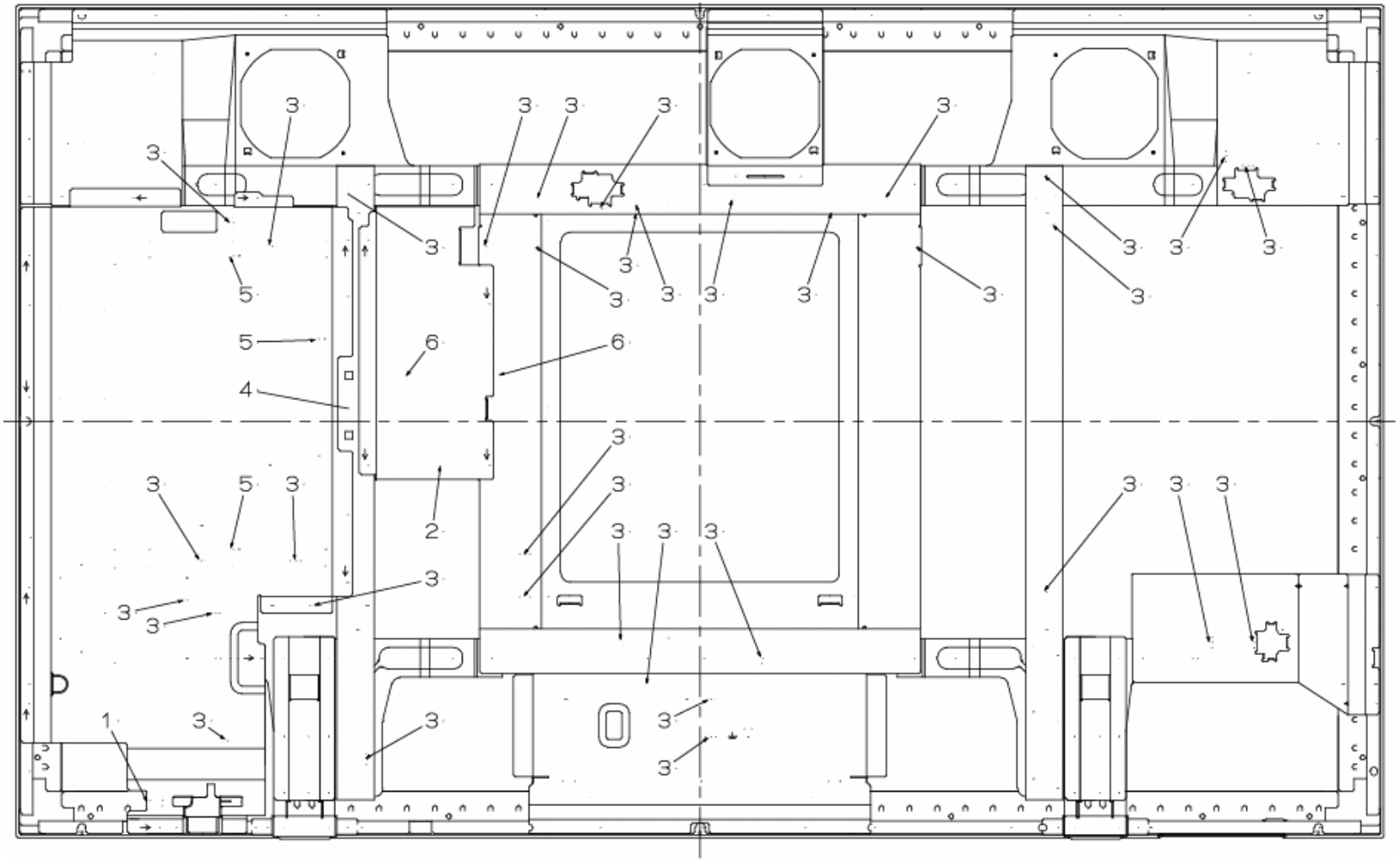
(Caution) For mounting, the FAN should be installed as illustrated.



21. BRACKET/SHIELD



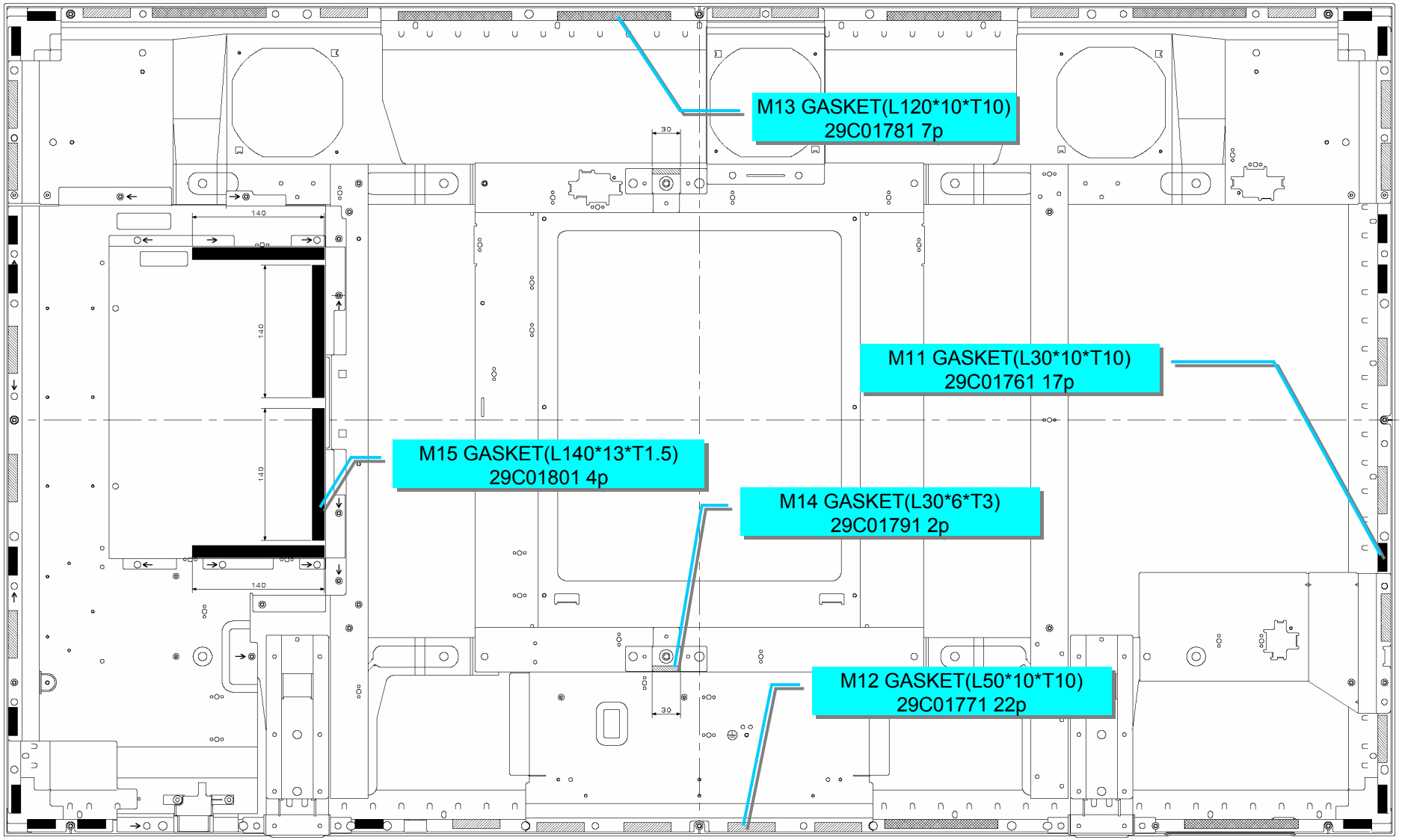
22. WIRE CLAMP



①M04 EDGING SADDLE(EDS-1208U)	29C00461	1p	
②M05 CLAMP(LCT-1S)	29C00551	1p	
③M64 CLAMP(RLWC-2SV0)	29C01901	34p	
④M07 CLAMP(RFCC-625)	29C01721	1p	
⑤M01 BUSHING,INSULATOR	24282991	3p	
⑥M09 CLAMP(RBWS-5N)	29C01741	2p	

23. GASKET(CLASS B)

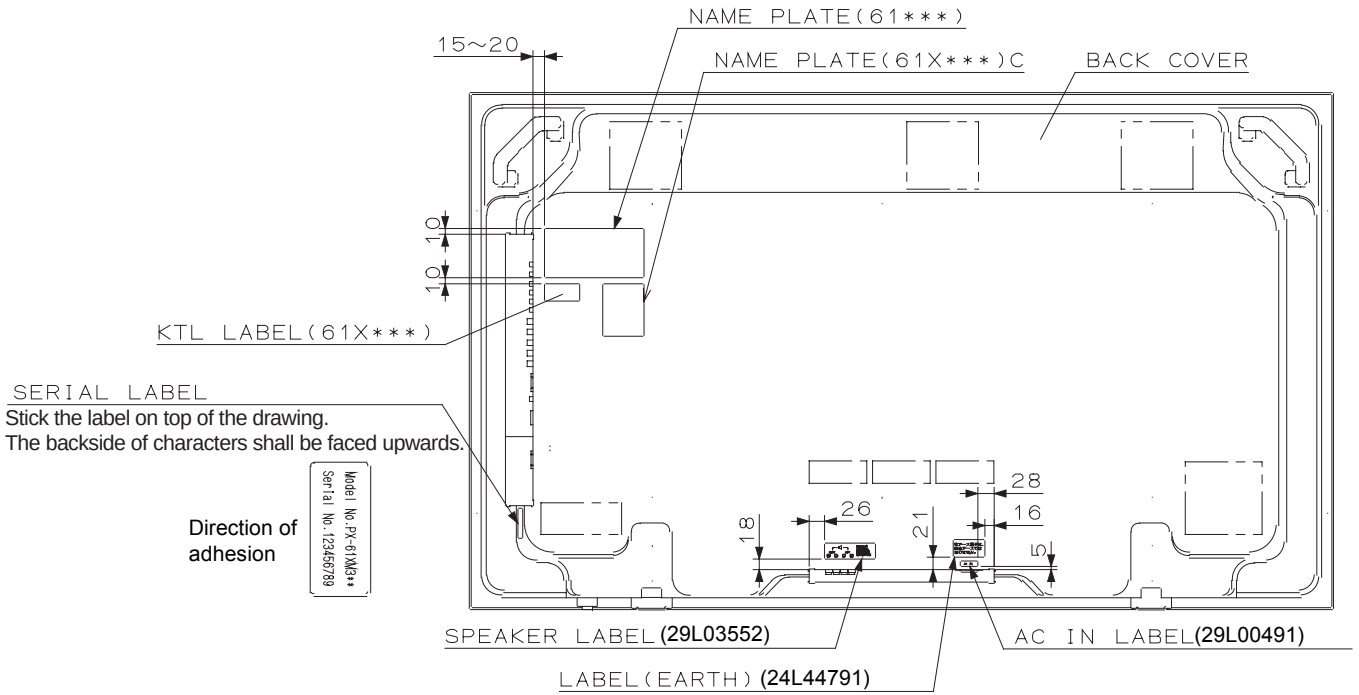
(Caution) Gaskets are used only for the CLASS B model. (PDP-614MX, PRO-1410HD)
If replacement is intended, the gasket should be carefully stuck without permitting it to protrude from the BACK COVER when this BACK COVER is being mounted.



24. LABELS

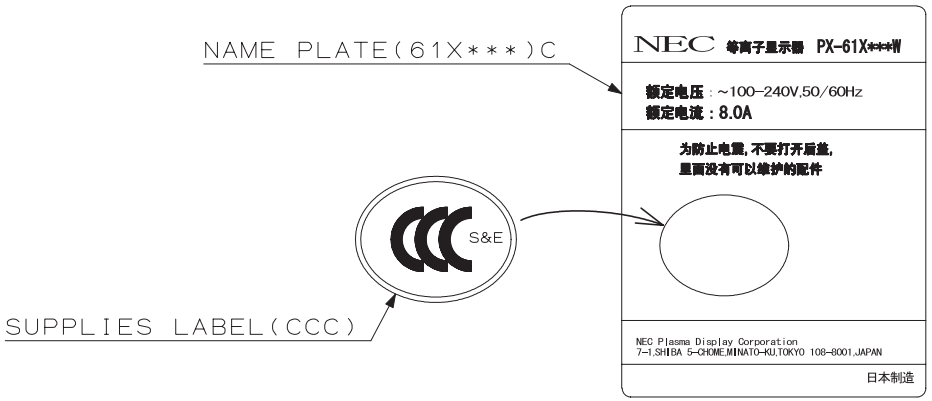
(1)Positions of adhesion

Stick the labels in the positions on the back cover illustrated below. Dimensions indicated are approximate figures. However, the presence of bends and air bubbles shall be reduced to a minimum.



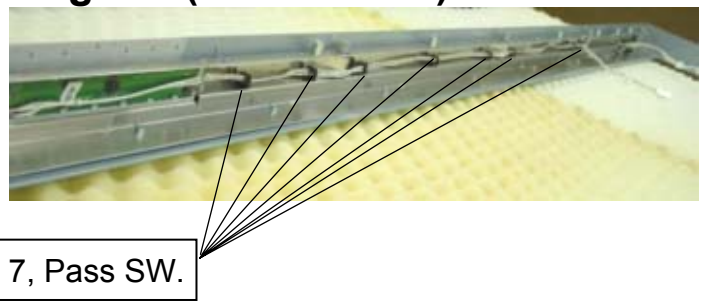
◇Adhesion of the CCC label

Stick the furnished CCC label approximately to the position indicated on the drawing of NAMEPLATE (61X***).

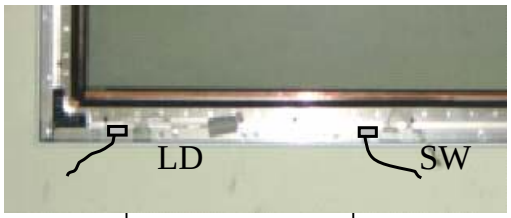


25. WIRING

Wiring Diagram (Front Block)

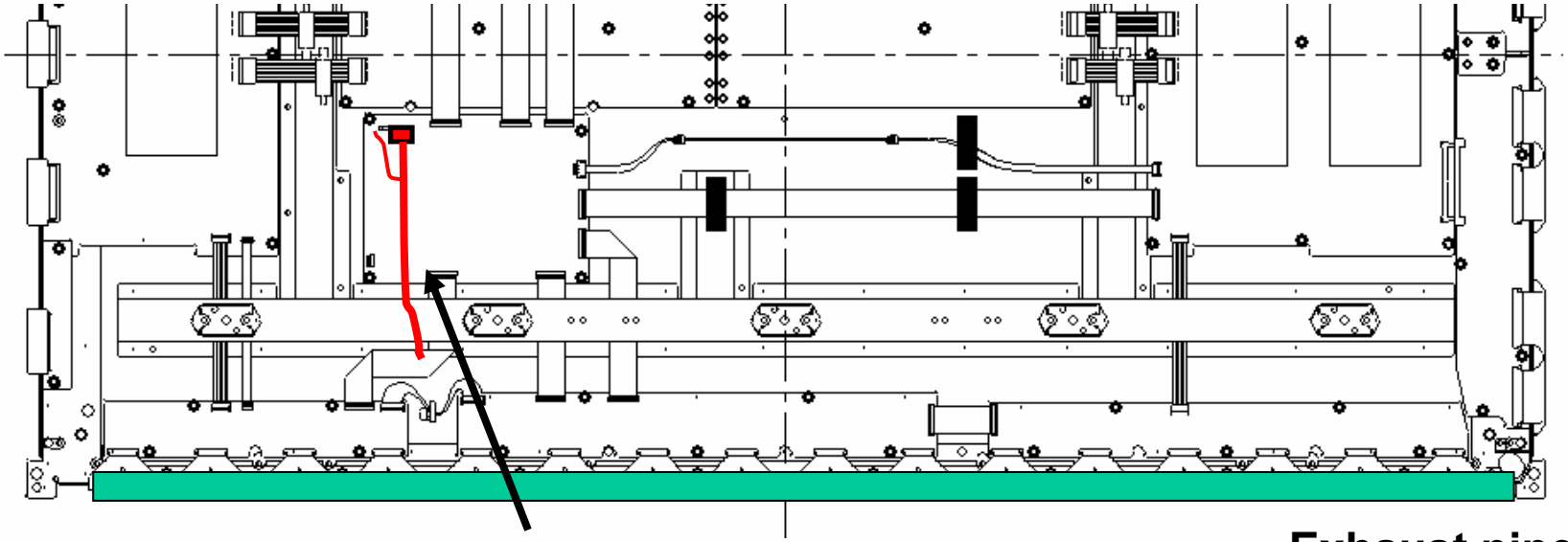


PX-61XM3J
PX-61XM3A
PX-61XM3W
PS-61XR3A
PX-61XR3W

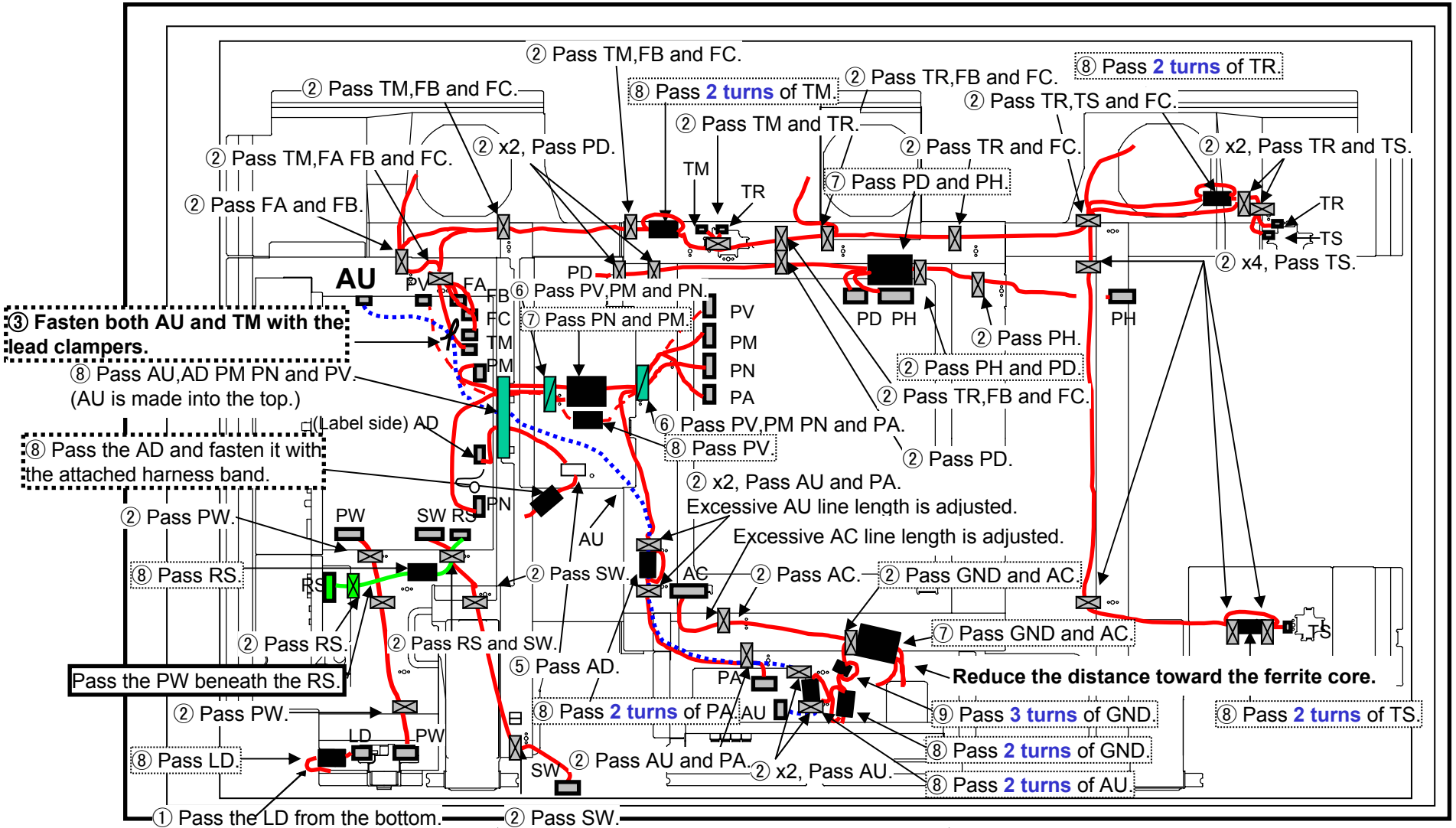


	PARTS NAME	PARTS NO.	Q'TY
①	EDGING SADDLE (EDS-1208U)	29C00461	2
②	CLAMP (UAMS-05-2)	29C01751	7

PX-61XM2P Cabling Diagram (Lower half of the module)



Wiring Diagram (Set)



		PARTS NAME (PARTS NO.)	Q'TY
①	EDGING SADDLE	EDS-1208U (29C00461)	1
②	CLAMP	RLWC-2SV0 (29C01901)	34
③	LEAD CLAMP	D8.3 (24C00101)	1
④	CLAMP	RFCC-625 (29C01721)	1

		PARTS NAME (PARTS NO.)	Q'TY
⑤	CLAMP	LCT-1S (29C00551)	1
⑥	CLAMP	RBWS-5N (29C01741)	2
⑦	FERRITE CORE	SFT-72SNB-026K (6S170003)	3
⑧	FERRITE CORE	ZCAT2032-930 (6S170005)	10

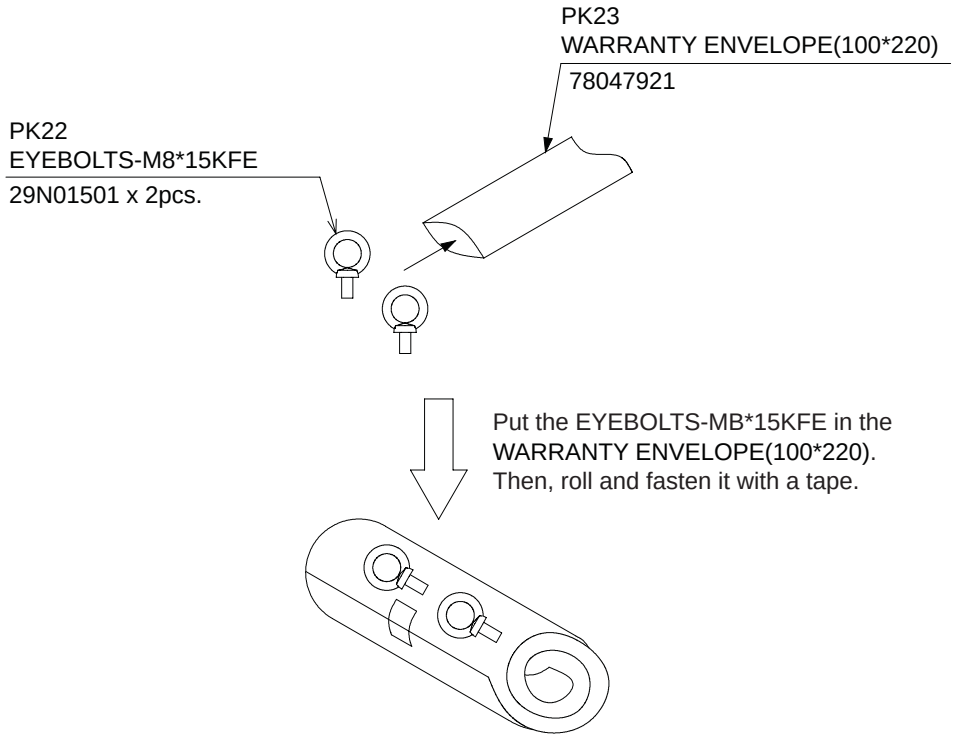
		PARTS NAME (PARTS NO.)	Q'TY
⑨	FERRITE CORE	ESD-R-19 (6S170007)	1
⑩	CLAMP	UAMS-05-2 (29C01751)	7

CCD board of PX-61XM3A/PX-61XR3A : Try to push the bush rivet and the connector, and confirm that there is no floating of parts.

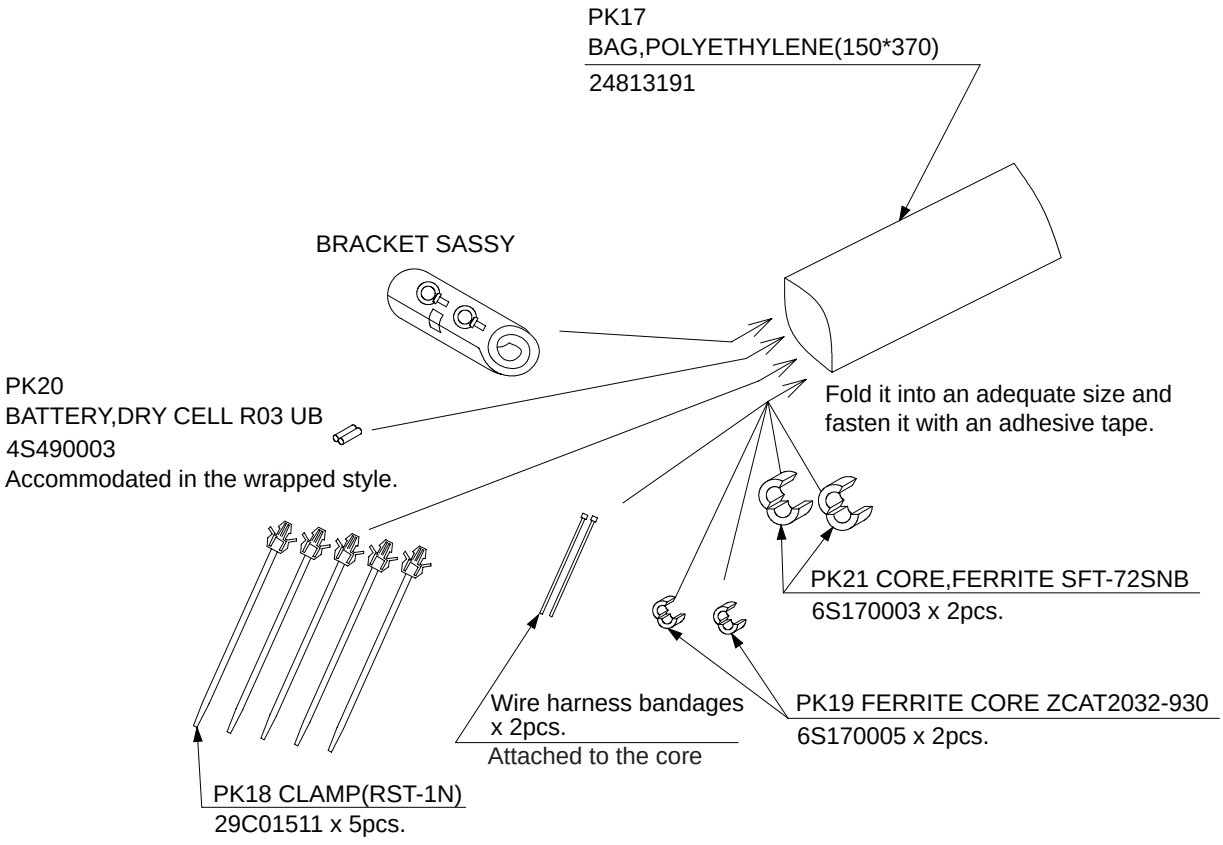
METHOD OF PACKAGING

PX-61XM3A

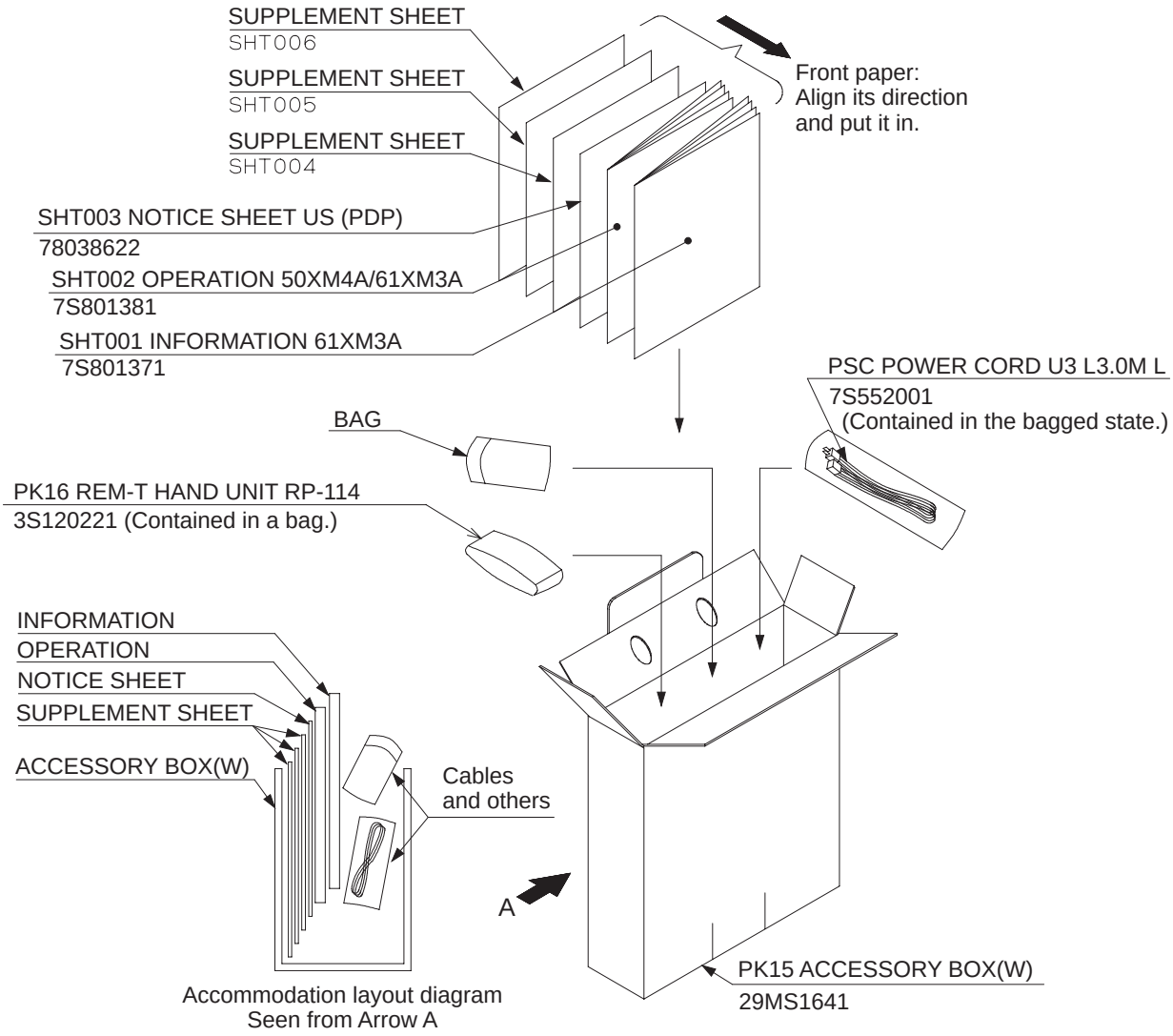
A) BRACKET SASSY



B) ACCESSORY SASSY

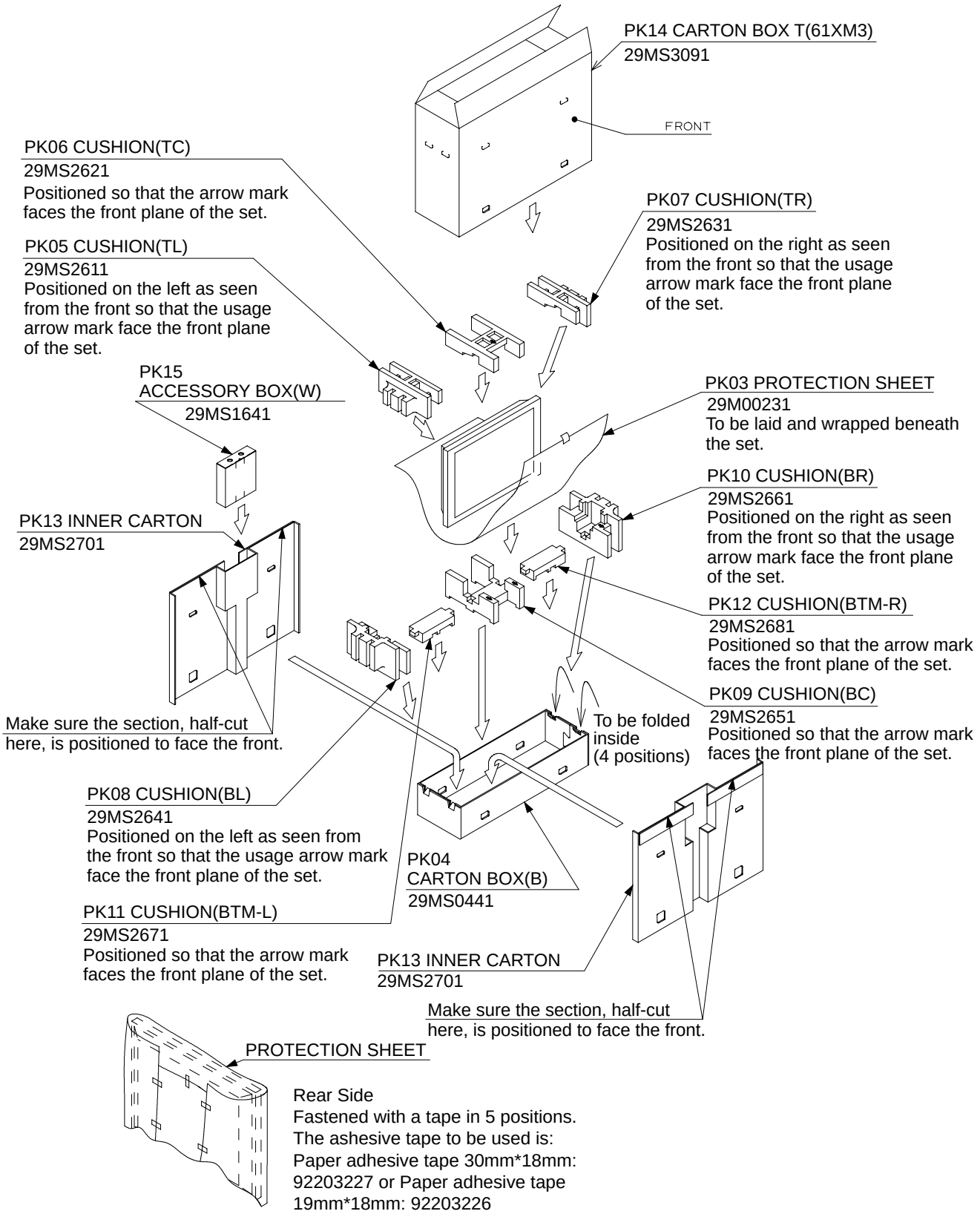


C) ACCESSORY BOX (W)



Name Titled	Circuit Symbol	Material Name	Material Code	Quantity Needed
POWER CORD	PSC	POWER CORD U3 L3.0M L	7S552001	1
	PSC	POWER CORD U3 L3.0M L	7S552004	or 0
INFORMATION	SHT001	INFORMATION 61XM3A	7S801371	1
OPERATION	SHT002	OPERATION 50XM4A/61XM3A	7S801381	1
NOTICE SHEET	SHT003	NOTICE SHEET US (PDP)	78038622	1
SUPPLEMENT SHEET	SHT004	Nil	Nil	Nil
	SHT005	Nil	Nil	Nil
	SHT006	Nil	Nil	Nil

D) CUSHION, INNER, CARTON BOX



PARTS LIST

Use this parts list with the contrast table[for PDP-614MX, PRO-1410HD]. (Refer to P6-1)

Notes:
1. Parts orders must contain model name, parts number and parts name.
2. When you place an order for spare parts, please refer to the respective service manual and mention the right parts number on your P.O. sheets
3. The letters NSP in the table indicate non-service parts.
4. Please refer to METHOD OF DISASSEMBLY or PACKAGING of service manual about a parts layout.

PX-61XM3A(01272282) VER.46

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
*** PDP MODULE ***				
PDP	PDP-NP61C2MF01	3S361002	1	
*** PWB ASSYS ***				
A01	MAIN1 PWB ASSY	937G3M01	1	
A02	232C PWB ASSY	937F7SA1	1	
A03	CTL PWB ASSY	937F7SB1	1	
A04	PWR PWB ASSY	937F7SC1	1	
A05	LED PWB ASSY	937F7SD1	1	
A06	SENB PWB ASSY	937F7SE1	1	
A07	SENC PWB ASSY	937F7SF1	1	
A08	SEND PWB ASSY	937F7SG1	1	
A09	AUDIO PWB ASSY	937F7SH1	1	
A10	CCD PWB ASSY	937F6C01	1	
PSU	POWER UNIT	3S110164	1	
*** MISCELLANEOUS ELECTRICAL PARTS ***				
CN-AD	CABLE 31P L390	7S530036	1	
CN-AU	CN 7P(AU) 1000W,2791-28	7SW7W001	1	
CN-FG	CABLE 1P L400	7S530027	1	
CN-LD	CN 5P(LD) 225,2468-26	7SU509LD	1	
CN-PA	CN 6P(PA) 650,2468-26	7SU626PA	1	
CN-PD	CN 10P(PD) 920W,1007-20	7SW0W010	1	
CN-PH	CN 9P(PH) 360W,1007-20	7SW9W008	1	
CN-PI	CN 2-WP(PI) 360W,1672-18	7SWXV002	1	
CN-PM	CN 7P(PM) 450,2468-26	7SU718PM	1	
CN-PN	CN 12P(PN) 475,2468-26	7SUB19PN	1	
CN-PV	CN 8P(PV) 525,2468-26	7SU821PV	1	
CN-PW	CN 8P(PW) 300,2468-26	7SC812PW	1	
CN-RS	CN 12P(RS) 200,2468-26	7SCB08RS	1	
CN-SW1	CN 3P(SW) 1050W,2468-26	7SB3W007	1	
CN-SW2	CN 3P(SW) 325W,2468-26	7SW3W007	1	
CN-TM	CN 4P(TM) 600,2468-26	7SC424TM	1	
CN-TR	CN 4P(TR) 900,2468-26	7SC436TR	1	
CN-TS	CN 4P(TS) 1075,2468-26	7SC443TS	1	
E01	FAN MOTOR 9G1212M4D03	3S170014	2	
E02	FAN MOTOR 9G1212M4D04	3S170015	1	
E03	AC INLET 10DKDG3S(Y1)	6S760016	1	
FL11	CORE,FERRITE SFT-72SNB	6S170003	1	
FL12	CORE,FERRITE SFT-72SNB	6S170003	1	
FL21	FERRITE CORE ZCAT2032-930	6S170005	1	
FL22	FERRITE CORE ZCAT2032-930	6S170005	1	
FL23	FERRITE CORE ZCAT2032-930	6S170005	1	
FL24	FERRITE CORE ZCAT2032-930	6S170005	1	
FL25	FERRITE CORE ZCAT2032-930	6S170005	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
FL26	FERRITE CORE ZCAT2032-930	6S170005	1	
FL27	FERRITE CORE ZCAT2032-930	6S170005	1	
FL28	FERRITE CORE ZCAT2032-930	6S170005	1	
FL29	FERRITE CORE ZCAT2032-930	6S170005	1	
FL41	CORE,FERRITE SFT-72SNB	6S170003	1	
FL42	FERRITE CORE(ESD-R-19)	6S170007	1	
FL43	FERRITE CORE ZCAT2032-930	6S170005	1	
*** MECHANISM PARTS ***				
SRW01	TP-M3*6*3KF	24N04581	3	
SRW02	TP-M3*6*3KF	24N04581	2	
SRW03	CBIPS*4*12*15KFE	29N01401	8	
SRW04	PL-CPIMS*3*6*15KFE	29N01421	30	
SRW05	PL-CPIMS*6*20*15KFE	29N01451	8	
SRW06	PL-CPIMS*6*20*15KFE	29N01451	2	
SRW07	PL-CPIMS*4*12*15KFE	29N01441	10	
SRW08	PL-CPIMS*4*12*15KFE	29N01441	10	
SRW09	PL-CPIMS*4*12*15KFE	29N01441	6	
SRW10	PL-CPIMS*4*12*15KFE	29N01441	3	
SRW11	PL-CPIMS*4*12*15KFE	29N01441	3	
SRW12	PL-CPIMS*4*12*15KFE	29N01441	4	
SRW13	PL-CPIMS*4*12*15KFE	29N01441	2	
SRW14	PL-CPIMS*4*12*15KFE	29N01441	6	
SRW15	CBIPS*3*8*3KF	24N03691	7	
SRW16	SCREW(UNC4-40/4-40)	32990229	4	
SRW17	TP-M3*6*3KF	24N04581	5	
SRW18				NOT USED
SRW19	SCREW(UNC4-40/4-40)	32990229	2	
SRW20	TP-M3*6*3KF	24N04581	1	
SRW21	CBIPS*3*8*3KF	24N03691	2	
SRW22	CPIMS*NO.6-32UNC*8*3GF	29N01131	2	
SRW23	TP-M3*6*3KF	24N04581	2	
SRW24	ET-CBIMS*4*8*3KF	24N04001	1	
SRW25	TP-M3*6*3KF	24N04581	3	
SRW26	TP-M3*6*3KF	24N04581	1	
SRW27	TP-M3*6*3KF	24N04581	3	
SRW28	TP-M3*6*3KF	24N04581	2	
SRW29	TP-M3*6*3KF	24N04581	3	
SRW30	CFIMS3*30*15KFE	29N01481	6	
SRW31	PL-CPIMS*4*12*15KFE	29N01441	8	
SRW32	CBIPS*4*12*15KFE	29N01401	12	
SRW33	PL-CPIMS*4*12*15KFE	29N01441	27	
SRW34	PL-CPIMS*4*16*3KF	910E4066	4	
SRW35	PL-CPIMS*3*10*15KFE	29N01431	14	
SRW36	PL-CPIMS*4*12*15KFE	29N01441	4	
SRW37	TP-M3*6*3KF	24N04581	2	
M01	BUSHING,INSULATOR	24282991	3	
M02				NOT USED
M03	SERIAL LABEL	24L44731	1	
M04	EDGING SADDLE(EDS-1208U)	29C00461	3	
M05	CLAMP(LCT-1S)	29C00551	1	
M06				NOT USED
M07	CLAMP(RFCC-625)	29C01721	1	
M08				NOT USED
M09	CLAMP(RBWS-5N)	29C01741	2	
M10	CLAMP(UAMS-05-2)	29C01751	7	
M11				NOT USED

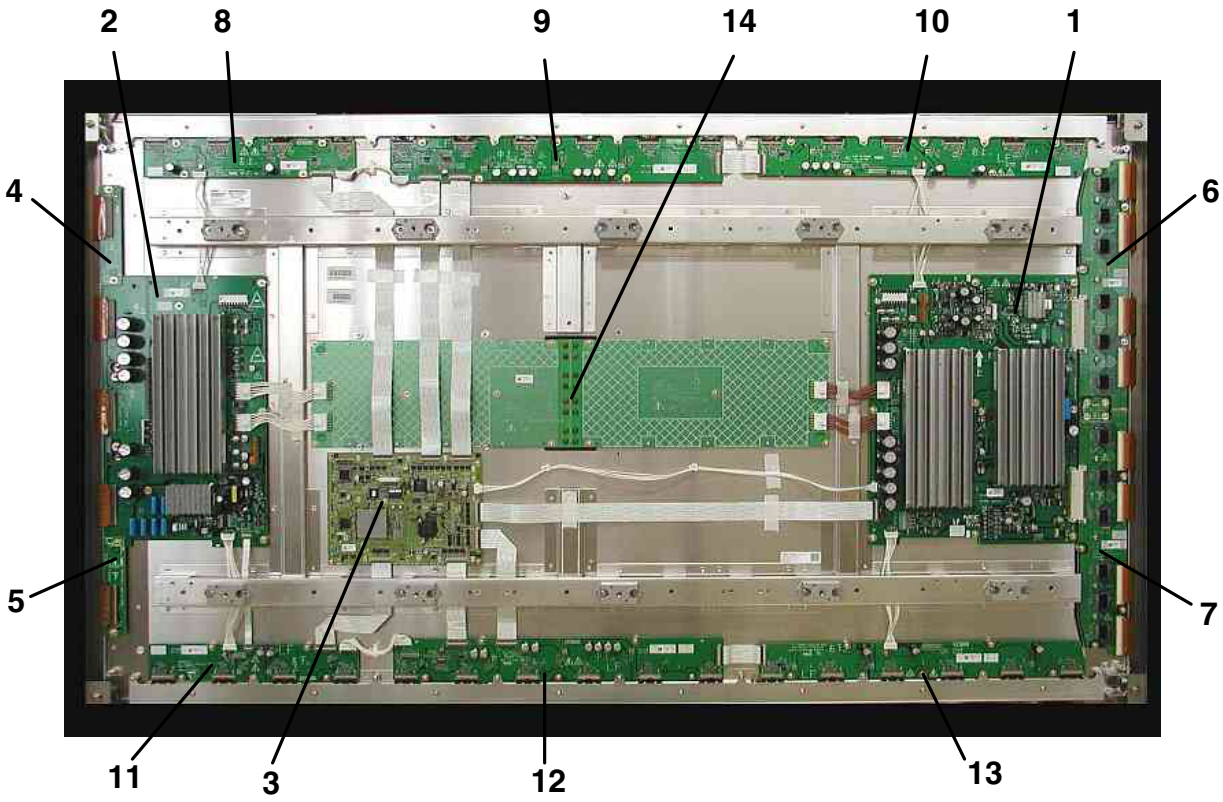
SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
M12				NOT USED
M13				NOT USED
M14				NOT USED
M15				NOT USED
M16	FRONT PANEL(61XM2)	29D00612	1	
M17	INLET COLLAR	29F00481	2	
M18	HANDLE	29F00591	2	
M19	COVER SW	29F00721	1	
M20	CORNER PIECE LT	29F00731	1	
M21	CORNER PIECE RT	29F00741	1	
M22	CORNER PIECE LB	29F00751	1	
M23	CORNER PIECE RB	29F00761	1	
M24	COVER CTL	29F00781	1	
M25	POWER BUTTON(50XM3)	29G00281	1	
M26	CONTROL BUTTON	29G00311	1	
M27	SHIELD PLATE MAIN(42XM3)	29H03541	1	
M28	TERMINAL PANEL M(50XM3)	29H02551	1	
M29	TERMINAL PANEL S(50XM3)	29H02561	1	
M30			1	NOT USED
M31	GS COVER	29H02782	1	
M32	F-BRACKET LR(IN)	29H02941	2	
M33	F-BRACKET T(IN)	29H02951	1	
M34	F-BRACKET B(IN)	29H02961	1	
M35	F-BRACKET LR(OUT)	29H02971	2	
M36	F-BRACKET T(OUT)	29H02981	1	
M37	F-BRACKET B(OUT)	29H02991	1	
M38	BRACKET SENSOR	29H03001	1	
M39	BRACKET MAIN(61XM3)	29H03601	1	
M40	SHIELD COVER MAIN	29H03021	1	
M41	FAN BRACKET	29H03031	1	
M42	TERMINAL PANEL B(61XM2)	29H03191	1	
M43	SHIELD CABLE	29H03231	1	
M44	BRACKET PC	29H03392	2	
M45	BARRIER(INLET)	29J01321	1	
M46				NOT USED
M47	SILICONE SHEET(AUDIO)T	29J01291	1	
M48	CUSHION(782*10*T5)	29J01171	2	
M49	CUSHION(686*10*T5)	29J01181	4	
M50	INDICATOR(50XM3)	29K00421	1	
M51	TERMINAL SHEET B(61XM2)	29K00551	1	
M52	TERMINAL SHEET M(50XM3)W	29K00571	1	
M53	TERMINAL SHEET S(50XM3)W	29K00581	1	
M54	FILTER(61A)	29KS0211	1	
M55	AC IN LABEL	29L00491	1	
M56	SPEAKER LABEL	29L03552	1	
M57	NAME PLATE(61XM3A)	29L05811	1	NSP
M58	BACK COVER(61XM2)	29P01271	1	
M59	BRACKET PS ASSY	29HS0822	1	
M60	CHASSIS L ASSY	29PS0881	1	
M61	CHASSIS R ASSY	29PS0891	1	
M62	SHIELDING TAPE AL(25*50M)	29C01911	1roll	4250mm/SET
M63				NOT USED
M64	CLAMP(RLWC-2SV0)	29C01901	34	
M65				NOT USED
M66				NOT USED
M67				NOT USED
M68				NOT USED

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
M69				NOT USED
M70	CLAMPER,WIRE (D8.3)	24C00101	1	
M71	AUDIO HEAT SINK	29H03561	1	
M72	CUSHION(FILTER)	29J01331	3	
*** PRINTED & PACKING MATERIALS ***				
PSC	POWER CORD U3 L3.0M L	7S552001	1	
SHT001	INFORMATION 61XM3A	7S801371	1	
SHT002	OPERATION 50XM4A/61XM3A	7S801381	1	
SHT003	NOTICE SHEET US (PDP)	78038622	1	
PK01	STOPPER	24282431	2	
PK02	JOINT	24CS0551	4	
PK03	PROTECTION SHEET	29M00231	1	
PK04	CARTON BOX(B)	29MS0441	1	
PK05	CUSHION(TL)	29MS2611	1	
PK06	CUSHION(TC)	29MS2621	1	
PK07	CUSHION(TR)	29MS2631	1	
PK08	CUSHION(BL)	29MS2641	1	
PK09	CUSHION(BC)	29MS2651	1	
PK10	CUSHION(BR)	29MS2661	1	
PK11	CUSHION(BTM-L)	29MS2671	1	
PK12	CUSHION(BTM-R)	29MS2681	1	
PK13	INNER CARTON	29MS2701	2	
PK14	CARTON BOX T(61XM3)	29MS3091	1	
PK15	ACCESSORY BOX(W)	29MS1641	1	
PK16	REM-T HAND UNIT RP-114	3S120221	1	
PK17	BAG,POLYETHYLENE(150*370)	24813191	1	
PK18	CLAMP(RST-1N)	29C01511	5	
PK19	FERRITE CORE ZCAT2032-930	6S170005	2	
PK20	BATTERY,DRY CELL R03 UB	4S490003	2	
PK21	CORE,FERRITE SFT-72SNB	6S170003	2	
PK22	EYEBOLTS-M8*15KFE	29N01501	2	
PK23	WARRANTY ENVELOPE(100*220)	78047921	1	
PK24	BAR CODE SERIAL LABEL	16761791	1	
PK25				NOT USED
PK26				NOT USED
PK27				NOT USED
PK28				NOT USED
PK29				NOT USED
PK30				NOT USED
PK31	MODEL NAME LABEL	29L05951	2	NSP
PK32				NOT USED

PDP MODULE

PARTS LIST (PDP-NP61C2MF01)					
	PART NAME		PART No.	Qty	NOTE
	NAME	VER *1			
1	PKG61C2F1	02C	9S899790	1	Scanning PKG
2	PKG61C2G1	02A	9S899669	1	Common PKG
3	PKG61C2C1	05C-27	9S899791	1	Digital PKG
	PKG61C2C1	05D-27	9S899731	1	Cf. interchangeability list
	PKG61C2C1	05C-28	9S899792	1	
	PKG61C2C1	05D-28	9S899793	1	
4	PKG61C2G2	02A	9S899670	1	Common Branch PKG (upper)
5	PKG61C2G3	02A	9S899671	1	Common Branch PKG (lower)
6	PKG61C2E1	02B	9S899660	1	Scanning Relay PKG (upper)
7	PKG61C2E2	02B	9S899661	1	Scanning Relay PKG (lower)
8	PKG61C2J1	01B	9S899583	1	Signal Relay PKG (upper left)
9	PKG61C2J2	01B	9S899584	1	Signal Relay PKG (upper center)
10	PKG61C2J3	01B	9S899585	1	Signal Relay PKG (upper right)
11	PKG61C2J4	01B	9S899586	1	Signal Relay PKG (lower left)
12	PKG61C2J5	01B	9S899587	1	Signal Relay PKG (lower center)
13	PKG61C2J6	01B	9S899588	1	Signal Relay PKG (lower right)
14	PKG61C2J7	01A	9S899589	1	Recovery Relay PKG

*1 : Version number of the Board Assy (PKG) is written down in the Board Assy itself.



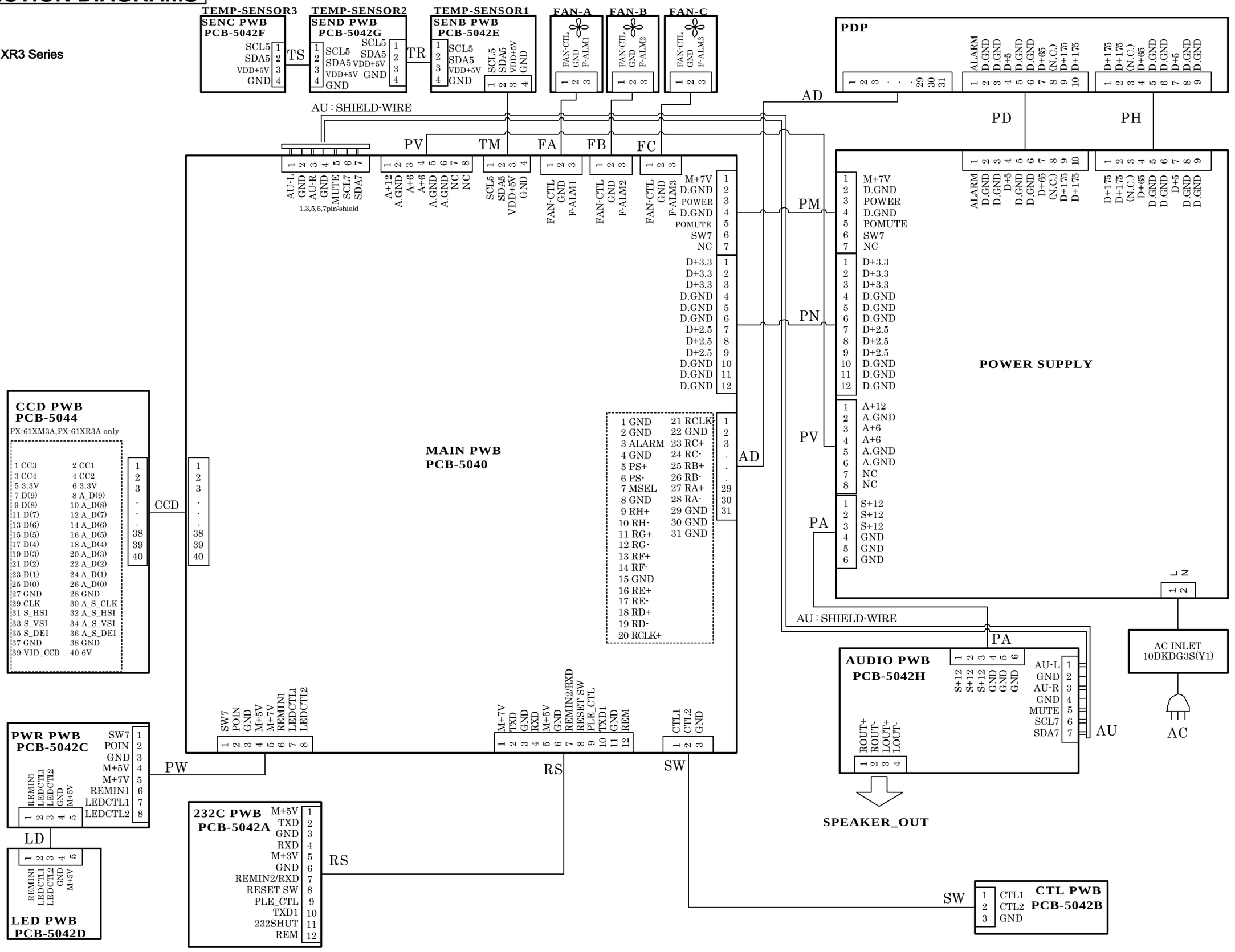
Board ASSY interchangeability list (in PDP-NP61C2MF01)

Note: In the Board ASSY (PKG) replacement, You can exchange it in a version of high rank than a replacement target version besides a compatible version.
Digital PKG follows the following list, and exchange it.

Digital PKG	Replacement Target Version	Compatible Version
PKG61C2C1	01A - 00, 01, 02, 03 01B - 03, 05, 07, 11 02A - 03, 02B - 03, 05, 07, 11 02C - 10, 17, 21 03B - 13, 15, 25 03C - 23, 25, 27 04C - 23, 25, 27 04D - 25, 27 05C - 25, 27 05D - 25, 27	Exchange it for 05C-27 (9S899791) or 05D-27 (9S899731).
	01B - 04, 06, 08, 12 02B - 04, 06, 08, 12 02C - 18, 22 03B - 14, 16 03C - 24, 28 04C - 24, 26, 28 04D - 26, 28 05C - 26, 28 05D - 26, 28	Exchange it for 05C-28 (9S899792) or 05D-28 (9S899793).

CONNECTION DIAGRAMS

PX-61XM3/61XR3 Series



CONNECTOR PIN EXPLANATION

PX-42VM5/42VP5/42VR5/42XM3/42XR3/50XM4/50XR4/61XM3/61XR3 Series

(Caution) The operating voltages specified below are used in common irrespective of the presence of signals. In this case, however, part of the operating voltages (red characters) may change according to the signal conditions when the main power supply is turned on (POWER button ON).

Status of LED lighting: ★ for lighting in green, ★★ for unlighting, and ★★★ for lighting in red.

Vol.1

Name	Pin No.	Pin name	Function		Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
					AC power ON (Power cord connected to the wall outlet) ★★	Main power ON (POWER button ON) ★		Power management ★★	Standby ★★★	Main power OFF ★★	AC power OFF (Power cord pulled out of the wall outlet) ★★	
						No signal	With signal					
PN	1	D+3.3	3.3V power supply for digital circuits		0	3.3	3.3	0	0	0	-	POWER→MAIN
	2	D+3.3	3.3V power supply for digital circuits		0	3.3	3.3	0	0	0	-	POWER→MAIN
	3	D+3.3	3.3V power supply for digital circuits		0	3.3	3.3	0	0	0	-	POWER→MAIN
	4	D.GND	GND		0	0	0	0	0	0	-	-
	5	D.GND	GND		0	0	0	0	0	0	-	-
	6	D.GND	GND		0	0	0	0	0	0	-	-
	7	D+2.5	2.5V power supply for digital circuits		0	2.5	2.5	0	0	0	-	POWER→MAIN
	8	D+2.5	2.5V power supply for digital circuits		0	2.5	2.5	0	0	0	-	POWER→MAIN
	9	D+2.5	2.5V power supply for digital circuits		0	2.5	2.5	0	0	0	-	POWER→MAIN
	10	D.GND	GND		0	0	0	0	0	0	-	-
	11	D.GND	GND		0	0	0	0	0	0	-	-
	12	D.GND	GND		0	0	0	0	0	0	-	-
PM	1	M+7	7V power supply for microcomputer		6.8	6.8	6.8	6.8	6.8	6.8	-	POWER→MAIN
	2	D.GND	GND		0	0	0	0	0	0	-	-
	3	POWER	Power control		0	4.9	4.9	0	0	0	-	MAIN→POWER
	4	D.GND	GND		0	0	0	0	0	0	-	-
	5	POMUTE	Mute signal for AC power OFF		4.8	4.8	4.8	4.8	4.8	4.8	4.8→-	POWER→MAIN
	6	SW7	Power start control		0	6.8	6.8	6.8	6.8	0	-	POWER→MAIN
	7	N C	Non-connection terminal		-	-	-	-	-	-	-	-
PV	1	A+12	12V power supply for analog circuits		0	12	12	0	0	0	-	POWER→MAIN
	2	A.GND	GND		0	0	0	0	0	0	-	-
	3	A+6	6V power supply for analog circuits		0	6	6	0	0	0	-	POWER→MAIN
	4	A+6	6V power supply for analog circuits		0	6	6	0	0	0	-	POWER→MAIN
	5	A.GND	GND		0	0	0	0	0	0	-	-
	6	A.GND	GND		0	0	0	0	0	0	-	-
	7	NC	Non-connection terminal		-	-	-	-	-	-	-	-
	8	NC	Non-connection terminal		-	-	-	-	-	-	-	-
AU	1	AU_L	Audio signal L CH		0	Selected input signals are output.	Selected input signals are output.	0	0	0	-	MAIN→AUDIO
	2	GND	GND		0	0	0	0	0	0	-	-
	3	AU_R	Audio signal R CH		0	Selected input signals are output.	Selected input signals are output.	0	0	0	-	MAIN→AUDIO
	4	GND	GND		0	0	0	0	0	0	-	-
	5	MUTE	Mute signal of audio output		3.5	3.5→0	3.5→0	3.5	3.5→0	3.5	3.5→-	MAIN→AUDIO
	6	SCL7	Clock line of the I2C bus		0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	0	0	0	-	MAIN→AUDIO
	7	SDA7	Data line of the I2C bus		0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	1	1	0	-	MAIN→AUDIO
RS	1	M+5V	5V power supply for microcomputer		0	5	5	5	5	0	-	MAIN→RS232C
	2	TXD	RS232 driver output		0	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are received.	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are received.	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are received.	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are received.	0	-	MAIN→RS232C
	3	GND	GND		0	0	0	0	0	0	-	-
	4	RXD	RS232 receiver input		0	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	0	-	RS232C→MAIN
	5	M+3.3V	3.3V power supply for microcomputer		0	3.3	3.3	3.3	3.3	0	-	MAIN→RS232C
	6	GND	GND		0	0	0	0	0	0	-	-
	7	REMIN2/RXD1	Data signal of wired remote control	42VM5 42VP5 42XM3 50XM4 61XM3	0	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	0	-	RS232C→MAIN
				42VR5 42XR3 50XR4 61XR3	0	0	0	0	0	0	-	
	8	RESET SW	NC		-	-	-	-	-	-	-	-
	9	PLE_CTL	PLE control	42VM5 42VP5 42XM3 50XM4 61XM3	0	3.3V duning data transmission for Video WOLL 0V when no data are transmitted	3.3V duning data transmission for Video WOLL 0V when no data are transmitted	3.3V duning data transmission for Video WOLL 0V when no data are transmitted	0	0	-	MAIN→RS232C
				42VR5 42XR3 50XR4 61XR3	0	0	0	0	0	0	-	
	10	TXD1	RS232 driver output	42VM5 42VP5 42XM3 50XM4 61XM3	0	Clock signal used during data transmission (5Vac) 5Vdc when no data are transmitted.	Clock signal used during data transmission (5Vac) 5Vdc when no data are transmitted.	Clock signal used during data transmission (5Vac) 5Vdc when no data are transmitted.	0	0	-	MAIN→RS232C

Name	Pin No.	Pin name	Function		Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
					AC power ON (Power cord connected to the wall outlet) ★★	Main power ON (POWER button ON) ★		Power management ★★	Standby ★★★	Main power OFF ★★	AC power OFF (Power cord pulled out of the wall outlet) ★★	
						No signal	With signal					
				42VR5 42XR3 50XR4 61XR3	0	0	0	0	0	0	-	
	11	232C_SHUT	ON/OFF control for TXD0 driver		0	3.3	3.3	3.3	3.3	0	-	MAIN→RS232C
	12	REM	Insertion detection for wired remote control input	42VM5 42VP5 42XM3 50XM4 61XM3	0	3.3V when a wired remote control is connected/ When not connected.	3.3V when a wired remote control is connected/ When not connected.	3.3V when a wired remote control is connected/ When not connected.	3.3V when a wired remote control is connected/ When not connected.	0	-	RS232C→MAIN
				42VR5 42XR3 50XR4 61XR3	-	-	-	-	-	-	-	(NC for Model R)
TM	1	SCL5	Clock line of the I2C bus		0	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are transmitted.	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are transmitted.	0	0	0	-	MAIN→SENB
	2	GND	GND		0	0	0	0	0	0	-	-
	3	VDD+3.3V	3.3V power supply for analog signals		0	3.3	3.3	0	0	0	-	MAIN→SENB
	4	SDA5	Data line of the I2C bus		0	During data exchange: Clock signal (3.3Vac), Data not exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), Data not exchanged: 3.3Vdc	0	0	0	-	MAIN←→SENB
TR	1	SCL5	Clock line of the I2C bus		0	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are transmitted.	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are transmitted.	0	0	0	-	SENB→SEND
	2	GND	GND		0	0	0	0	0	0	-	-
	3	VDD+3.3V	3.3V power supply for analog signals		0	3.3	3.3	0	0	0	-	SENB→SEND
	4	SDA5	Data line of the I2C bus		0	During data exchange: Clock signal (3.3Vac), Data not exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), Data not exchanged: 3.3Vdc	0	0	0	-	SENB←→SEND
TS	1	SCL5	Clock line of the I2C bus		0	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are transmitted.	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are transmitted.	0	0	0	-	SEND→SENC
	2	GND	GND		0	0	0	0	0	0	-	-
	3	VDD+3.3V	3.3V power supply for analog signals		0	3.3	3.3	0	0	0	-	SEND→SENC
	4	SDA5	Data line of the I2C bus		0	During data exchange: Clock signal (3.3Vac), Data not exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), Data not exchanged: 3.3Vdc	0	0	0	-	SEND←→SENC
FA	1	FAN-CTL	Voltage-controllable power supply	42VM5 42VP5 42VR5	-	-	-	-	-	-	-	-
				42XM3 42XR3	0	11.5Vdc during high-speed revolution (Fan mode H); 8.5Vdc during medium speed revolution (Fan mode M); 6.5Vdc during low-speed revolution (Fan mode L)	11.5Vdc during high-speed revolution (Fan mode H); 8.5Vdc during medium speed revolution (Fan mode M); 6.5Vdc during low-speed revolution (Fan mode L)	0	0	0	-	MAIN→FAN
				50XM4 50XR4	0	11.6Vdc during high-speed revolution (Fan mode H); 7.8Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	11.6Vdc during high-speed revolution (Fan mode H); 7.8Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	0	0	0	-	
				61XM3 61XR3	0	9.3Vdc during high-speed revolution (Fan mode H); 7.6Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	9.3Vdc during high-speed revolution (Fan mode H); 7.6Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	0	0	0	-	
	2	GND	GND		0	0	0	0	0	0	-	-
	3	ALARM	FAN lock detect signal output	42VM5 42VP5 42VR5	-	-	-	-	-	-	-	-

Name	Pin No.	Pin name	Function		Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
					AC power ON (Power cord connected to the wall outlet) ★★	Main power ON (POWER button ON) ★		Power management ★★	Standby ★★★	Main power OFF ★★	AC power OFF (Power cord pulled out of the wall outlet) ★★	
						No signal	With signal					
				42XM3 42XR3 50XM4 50XR4 61XM3 61XR3	0	0V during normal fan operation;3.3V dc while the fan is stopped.	0V during normal fan operation;3.3V dc while the fan is stopped.	0	0	0	-	FAN→MAIN
FB	1	FAN-CTL	Voltage-controllable power supply	42VM5 42VP5 42VR5	-	-	-	-	-	-	-	-
				42XM3 42XR3	0	11.5Vdc during high-speed revolution (Fan mode H); 8.5Vdc during medium speed revolution (Fan mode M); 6.5Vdc during low-speed revolution (Fan mode L)	11.5Vdc during high-speed revolution (Fan mode H); 8.5Vdc during medium speed revolution (Fan mode M); 6.5Vdc during low-speed revolution (Fan mode L)	0	0	0	-	MAIN→FAN
				50XM4 50XR4	0	11.6Vdc during high-speed revolution (Fan mode H); 7.8Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	11.6Vdc during high-speed revolution (Fan mode H); 7.8Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	0	0	0	-	
				61XM3 61XR3	0	9.3Vdc during high-speed revolution (Fan mode H); 7.6Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	9.3Vdc during high-speed revolution (Fan mode H); 7.6Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	0	0	0	-	
	2	GND	GND		0	0	0	0	0	0	-	-
	3	ALARM	FAN lock detect signal output	42VM5 42VP5 42VR5	-	-	-	-	-	-	-	-
				42XM3 42XR3 50XM4 50XR4 61XM3 61XR3	0	0V during normal fan operation;3.3V dc while the fan is stopped.	0V during normal fan operation;3.3V dc while the fan is stopped.	0	0	0	-	FAN→MAIN
FC	1	FAN-CTL	Voltage-controllable power supply	42VM5 42VP5 42VR5 42XM3 42XR3 50XM4 50XR4	-	-	-	-	-	-	-	-
				61XM3 61XR3	0	9.3Vdc during high-speed revolution (Fan mode H); 7.6Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	9.3Vdc during high-speed revolution (Fan mode H); 7.6Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	0	0	0	-	FAN→MAIN
	2	GND	GND		0	0	0	0	0	0	-	-
	3	ALARM	FAN lock detect signal output	42VM5 42VP5 42VR5 42XM3 42XR3 50XM4 50XR4	-	-	-	-	-	-	-	-
				61XM3 61XR3	0	0V during normal fan operation;3.3V dc while the fan is stopped.	0V during normal fan operation;3.3V dc while the fan is stopped.	0	0	0	-	FAN→MAIN
AD	1	GND	GND		0	0	0	0	0	0	-	-
	2	GND	GND		0	0	0	0	0	0	-	-
	3	ALARM	Module alarm signal		0	5Vdc during normal PDP operation; 0V when the PDP is out of order.	5Vdc during normal PDP operation; 0V when the PDP is out of order.	0	0	0	-	PDP→MAIN
	4	GND	GND		0	0	0	0	0	0	-	-

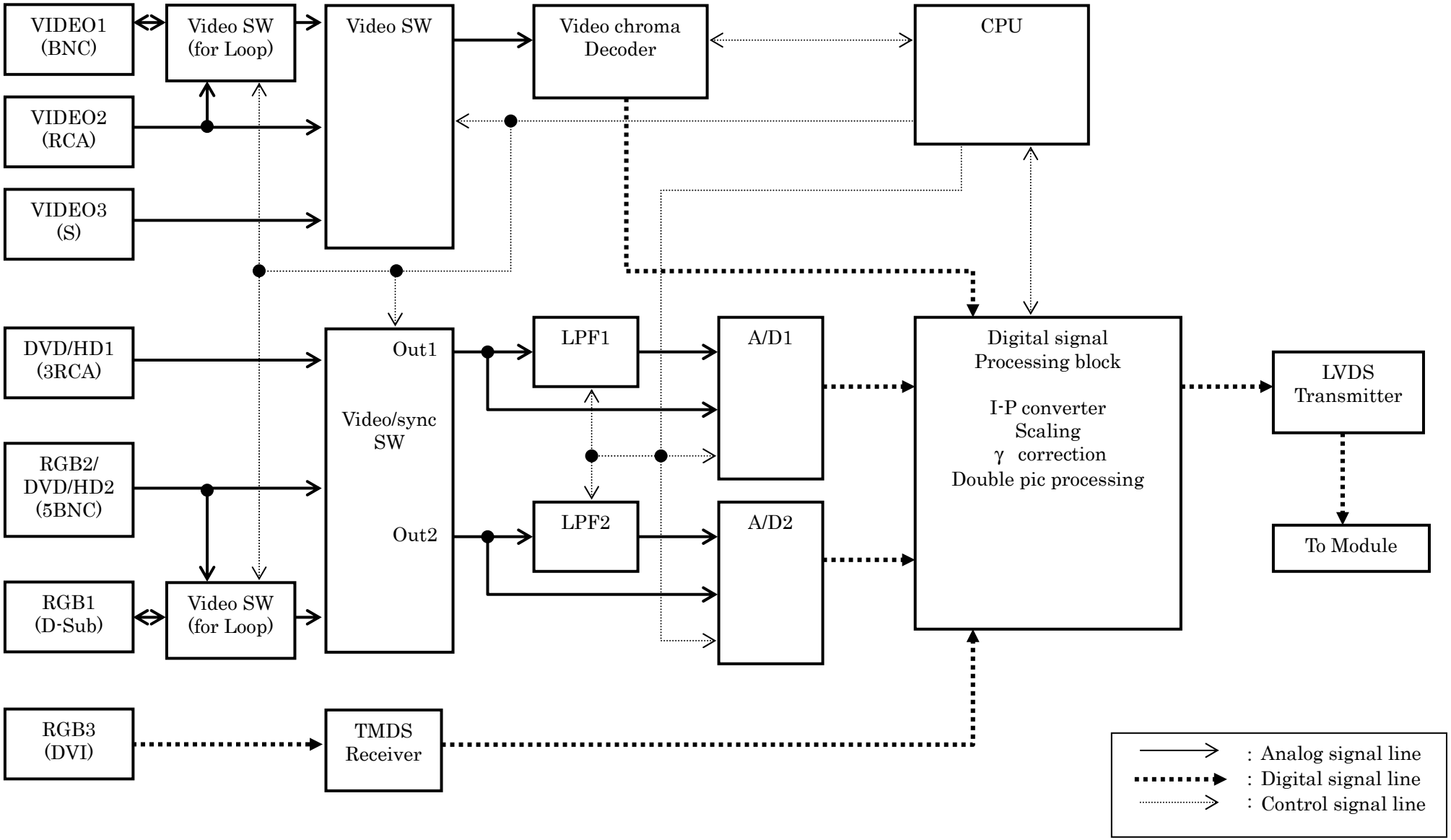
Name	Pin No.	Pin name	Function	Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
				AC power ON (Power cord connected to the wall outlet) ★★	Main power ON (POWER button ON) ★		Power management ★★	Standby ★★★	Main power OFF ★★	AC power OFF (Power cord pulled out of the wall outlet) ★★	
					No signal	With signal					
	5	PS+	PSS input PS+	0	PSS LVDS serial differential PS+ input 0Vac; Bias 1.1Vdc	PSS LVDS serial differential PS+ input 0.3Vac; Bias 1.25Vdc	0	0	0	-	PDP→MAIN
	6	PS-	PSS input PS-	0	PSS LVDS serial differential PS+ input 0Vac; Bias 1.4Vdc	PSS LVDS serial differential PS+ input 0.3Vac; Bias 1.25Vdc	0	0	0	-	PDP→MAIN
	7	MSEL	42V5 compatible interface OFF	0	0	0	0	0	0	-	-
	8	GND	GND	0	0	0	0	0	0	-	-
	9	RH+	OSD system output H+	0	OSD LVDS serial differential H+ output 0Vac; Bias 1.1Vdc	OSD LVDS serial differential H+ output 0Vac; Bias 1.1Vdc	0	0	0	-	MAIN→PDP
	10	RH-	OSD system output H–	0	OSD LVDS serial differential H- output 0Vac; Bias 1.4Vdc	OSD LVDS serial differential H- output 0Vac; Bias 1.4Vdc	0	0	0	-	MAIN→PDP
	11	RG+	OSD system output G+	0	OSD LVDS serial differential G+ output 0.3Vac; Bias 1.25Vdc	OSD LVDS serial differential G+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	12	RG-	OSD system output G-	0	OSD LVDS serial differential G- output 0.3Vac; Bias 1.25Vdc	OSD LVDS serial differential G- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	13	RF+	Mode system output F+	0	Video mode LVDS serial differential F+ output 0.3Vac; Bias 1.25Vdc	Video mode LVDS serial differential F+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	14	RF-	Mode system output F-	0	Video mode LVDS serial differential F- output 0.3Vac; Bias 1.25Vdc	Video mode LVDS serial differential F- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	15	GND	GND	0	0	0	0	0	0	-	-
	16	RE+	Video system output E+	0	Video mode LVDS serial differential E+ output 0Vac; Bias 1.1Vdc	Video mode LVDS serial differential E+ output 0Vac; Bias 1.1Vdc * Only for the PX-42VP4 Series, 0.3Vac and bias 1.25 Vdc in theater mode when 60Hz motion pictures are displayed.	0	0	0	-	MAIN→PDP
	17	RE-	Video system output E-	0	Video mode LVDS serial differential E- output 0Vac; Bias 1.4Vdc	Video mode LVDS serial differential E- output 0.3Vac; Bias 1.25Vdc * Only for the PX-42VP4 Series, 0.3Vac and bias 1.25 Vdc in theater mode when 60Hz motion pictures are displayed.	0	0	0	-	MAIN→PDP
	18	RD+	Video system output D+	0	Video mode LVDS serial differential D+ output 0Vac; Bias 1.1Vdc	Video mode LVDS serial differential D+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	19	RD-	Video system output D–	0	Video mode LVDS serial differential D- output 0Vac; Bias 1.4Vdc	Video mode LVDS serial differential D- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP

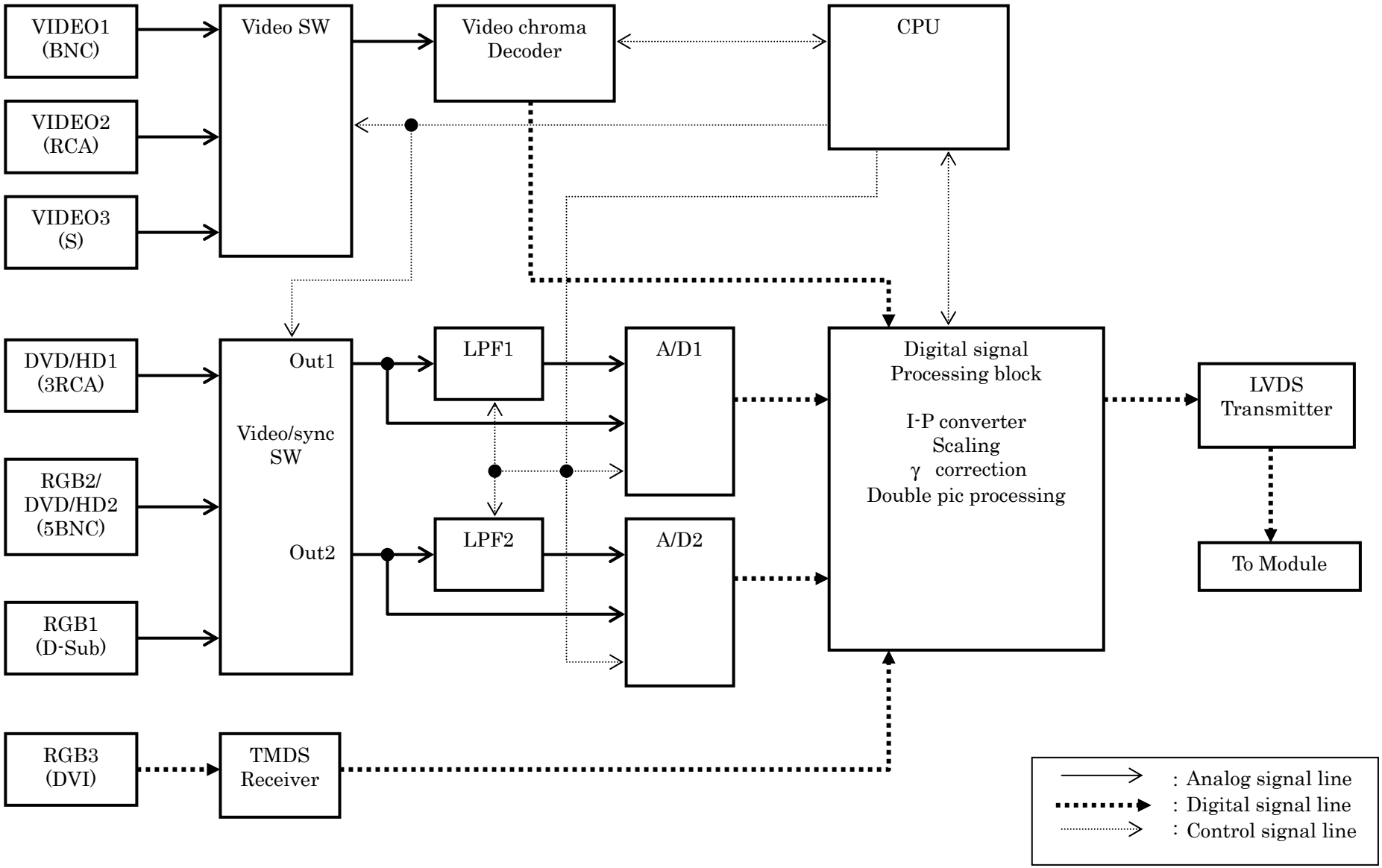
Name	Pin No.	Pin name	Function	Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
				AC power ON (Power cord connected to the wall outlet) ★★	Main power ON (POWER button ON) ★		Power management ★★	Standby ★★★	Main power OFF ★★	AC power OFF (Power cord pulled out of the wall outlet) ★★	
					No signal	With signal					
	20	RCLK+	Video system output clock+	0	Video data clock LVDS serial differential clock+ output 0.3Vac; Bias 1.25Vdc	Video data clock LVDS serial differential clock+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	21	RCLK-	Video system output clock–	0	Video data clock LVDS serial differential clock- output 0.3Vac; Bias 1.25Vdc	Video data clock LVDS serial differential clock- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	22	GND	GND	0	0	0	0	0	0	-	-
	23	RC+	Video system output C+	0	Video data LVDS serial differential C+ output 0.3Vac; Bias 1.25Vdc	Video data LVDS serial differential C+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	24	RC-	Video system output C–	0	Video data LVDS serial differential C- output 0.3Vac; Bias 1.25Vdc	Video data LVDS serial differential C- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	25	RB+	Video system output B+	0	Video data LVDS serial differential B+ output 0Vac; Bias 1.1Vdc	Video data LVDS serial differential B+ output 0Vac; Bias 1.1Vdc	0	0	0	-	MAIN→PDP
	26	RB-	Video system output B–	0	Video data LVDS serial differential B- output 0Vac; Bias 1.4Vdc	Video data LVDS serial differential B- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	27	RA+	Video system output A+	0	Video data LVDS serial differential A+ output 0Vac; Bias 1.1Vdc	Video data LVDS serial differential A+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	28	RA-	Video system output A–	0	Video data LVDS serial differential A- output 0Vac; Bias 1.4Vdc	Video data LVDS serial differential A- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	29	GND	GND	0	0	0	0	0	0	-	-
	30	GND	GND	0	0	0	0	0	0	-	-
	31	GND	GND	0	0	0	0	0	0	-	-
LD	1	REMIN1	Infrared remote control data	0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	0	-	LED→PWR
	2	LEDCTL1	Standby red LED control	0	0	0	3.3	3.3	0	-	PWR→LED
	3	LEDCTL2	POWER ON green LED control	0	3.3	3.3	0	0	0	-	PWR→LED
	4	GND	GND	0	0	0	0	0	0	-	-
	5	M+5V	5V power supply for microcomputer	0	5	5	5	5	0	-	PWR→LED
PW	1	SW7	Power start control	0	6.8	6.8	6.8	6.8	0	-	PW→MAIN
	2	POIN	Power start detection	0	3.3	3.3	3.3	3.3	0	-	PW→MAIN
	3	GND	GND	0	0	0	0	0	0	-	-
	4	M+5V	5V power supply for microcomputer	0	5	5	5	5	0	-	MAIN→PW
	5	M+7V	7V power supply for microcomputer	0	6.8	6.8	6.8	6.8	6.8	-	MAIN→PW
	6	REMIN1	Infrared remote control data	0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	0	-	PW→MAIN
	7	LEDCTL1	Standby red LED control	0	0	0	3.3	3.3	0	-	MAIN→PW
	8	LEDCTL2	POWER ON green LED control	0	3.3	3.3	0	0	0	-	MAIN→PW
SW	1	CTL1	Key input detection	0	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0	-	SW→MAIN
	2	CTL2	Key input detection	0	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0	-	SW→MAIN
	3	GND	GND	0	0	0	0	0	0	-	-
PA	1	S+12	+12V power supply for audio circuits	0	12	12	0	0	0	-	POWER→AUDIO
	2	S+12	+12V power supply for audio circuits	0	12	12	0	0	0	-	POWER→AUDIO
	3	S+12	+12V power supply for audio circuits	0	12	12	0	0	0	-	POWER→AUDIO
	4	GND	GND	0	0	0	0	0	0	-	-

Name	Pin No.	Pin name	Function		Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
					AC power ON (Power cord connected to the wall outlet) ★★	Main power ON (POWER button ON) ★		Power management ★★	Standby ★★★	Main power OFF ★★	AC power OFF (Power cord pulled out of the wall outlet) ★★	
						No signal	With signal					
	5	GND	GND		0	0	0	0	0	0	-	-
	6	GND	GND		0	0	0	0	0	0	-	-
PD	1	ALARM	PDP alarm signal	42VM5 42VP5 42VR5 42XM3 42XR3 50XM4 50XR4	0	5Vdc when the PDP is normal; 0V when it is abnormal.	5Vdc when the PDP is normal; 0V when it is abnormal.	0	0	0	-	PDP→POWER
	2	D.GND	GND		0	0	0	0	0	0	-	-
	3	D.GND	GND		0	0	0	0	0	0	-	-
	4	D.GND	GND		0	0	0	0	0	0	-	-
	5	D.GND	GND		0	0	0	0	0	0	-	-
	6	D+60	Vd power supply for PDP		0	60Vdc (changeable according to the PDP)	60Vdc (changeable according to the PDP)	0	0	0	-	PDWER→PDP
	7	D+60	digital circuits		0	60Vdc (changeable according to the PDP)	60Vdc (changeable according to the PDP)	0	0	0	-	PDWER→PDP
	8	NC	digital circuits		-	-	-	-	-	-	-	-
	9	D+170	Vs power supply for PDP high-voltage circuits		0	170Vdc (changeable according to the PDP)	170Vdc (changeable according to the PDP)	0	0	0	-	PDWER→PDP
	10	D+170	Vs power supply for PDP high-voltage circuits		0	170Vdc (changeable according to the PDP)	170Vdc (changeable according to the PDP)	0	0	0	-	PDWER→PDP
	1	ALARM	PDP alarm signal	61XM3 61XR3	0	5Vdc when the PDP is normal; 0V when it is abnormal.	5Vdc when the PDP is normal; 0V when it is abnormal.	0	0	0	-	PDP→POWER
	2	D.GND	GND		0	0	0	0	0	0	-	-
	3	D.GND	GND		0	0	0	0	0	0	-	-
	4	D+5	5V power supply for digital circuits		0	5.15	5.15	0	0	0	-	POWER→PDP
	5	D.GND	GND		0	0	0	0	0	0	-	-
	6	D.GND	GND		0	0	0	0	0	0	-	-
	7	D+65	Vd power supply for PDP		0	65Vdc (changeable according to the PDP)	65Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
	8	NC	digital circuits		-	-	-	-	-	-	-	-
	9	D+175	Vs power supply for PDP high-voltage circuits		0	175Vdc (changeable according to the PDP)	175Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
	10	D+175	Vs power supply for PDP high-voltage circuits		0	175Vdc (changeable according to the PDP)	175Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
PH	1	D+5	5V power supply for digital circuits	42VM5 42VP5 42VR5 42XM3 42XR3 50XM4 50XR4	0	5.15	5.15	0	0	0	-	PDWER→PDP
	2	D+5	5V power supply for digital circuits		0	5.15	5.15	0	0	0	-	PDWER→PDP
	3	D.GND	GND		0	0	0	0	0	0	-	-
	4	D.GND	GND		0	0	0	0	0	0	-	-
	1	D+175	Vs power supply for PDP high-voltage circuits	61XM3 61XR3	0	175Vdc (changeable according to the PDP)	175Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
	2	D+175	Vs power supply for PDP high-voltage circuits		0	175Vdc (changeable according to the PDP)	175Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
	3	NC	Non-connection		-	-	-	-	-	-	-	-
	4	D+65	Vd power supply for PDP		0	65Vdc (changeable according to the PDP)	65Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
	5	D.GND	digital circuits		0	0	0	0	0	0	-	-
	6	D.GND	GND		0	0	0	0	0	0	-	-
	7	D+5	5V power supply for digital circuits		0	5.15	5.15	0	0	0	-	POWER→PDP
	8	D.GND	GND		0	0	0	0	0	0	-	-
	9	D.GND	GND		0	0	0	0	0	0	-	-

BLOCK DIAGRAM

PX-50XM4/61XM3 Series



BLOCK DIAGRAM

PX-50XR4/61XR3 Series